APPENDIX A

United States Court of Appeals, Eighth Circuit.

IOWA UTILITIES BOARD, et al., Petitioners,
v.
FEDERAL COMMUNICATIONS COMMISSION and United States of America, Respondents.

No. 96-3321.

Submitted: Sept. 17, 1999.
Filed: July 18, 2000.

On Petitions for Review of an Order of the Federal Communications Commission.

BEFORE: WOLLMAN, Chief Judge, BOWMAN and HANSEN, Circuit Judges.

HANSEN, Circuit J.

These cases are before us on remand from the Supreme Court. *See AT & T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999). Local telephone service providers (known as "incumbent local exchange carriers" or "ILECs") and their industry associations petition for review of the First Report and Order[1] issued by the Federal Communications Commission (FCC) which contains the FCC's findings and rules[2] pertaining to the local competition provisions of the Telecommunications

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[1] *In re Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 11 FCCRcd 15499 (1996) (First Report and Order).

[2] The FCC's rules are codified in scattered sections of Title 47, Code of Federal Regulations. All references in this opinion to the Code of Federal Regulations are to the 1997 version.

Act of 1996[3] (the Act). The Act requires an ILEC to (1) permit requesting new entrants (competitors) in the ILEC's local market to interconnect with the ILEC's existing local network and, thereby, use that network to compete in providing local telephone service (interconnection); (2) provide its competitors with access to elements of the ILEC's own network on an unbundled basis (unbundled access); and (3) sell to its competitors, at wholesale rates, any telecommunications service that the ILEC provides to its customers at retail rates in order to allow the competing carriers to resell those services (resale). See 47 U.S.C. § 251(c)(2)- (4) (1994 ed., Supp. III).[4] Through this Act, Congress sought "to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies." Telecommunications Act of 1996, Pub.L. No. 104-104, purpose statement, 110 Stat. 56, 56 (1996). Challenges to the First Report and Order were consolidated in this court.

I. Background

We present a brief summary of the background of this case based upon the belief that all parties are familiar with the opinion of the Supreme Court as well as our prior opinion. In our prior opinion, *Iowa Utils. Bd. v. F.C.C.*, 120 F.3d 753 (8th Cir.1997), we concluded, in relevant part, that (1) the FCC exceeded its jurisdiction in promulgating various pricing rules; (2) the FCC exceeded its jurisdiction in promulgating 47 C.F.R. § 51.405, regarding rural exemptions; (3) the FCC exceeded its jurisdiction in promulgating 47 C.F.R. § 51.303, regarding preexisting agreements; and (4) various unbundling rules,

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[3] Telecommunications Act of 1996, Pub.L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of Title 47, United States Code).

[4] All references in this opinion to sections and subsections of the Telecommunications Act of 1996 in the United States Code are to the 1997 supplement unless otherwise indicated.

including the superior quality rules and the combination of network elements rule, were contrary to the Act.

The Supreme Court affirmed in part, reversed in part, and remanded. *See AT & T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999). The Supreme Court reversed that part of our opinion pertaining to jurisdiction and held that the FCC had jurisdiction to (1) design a pricing methodology; (2) promulgate rules pertaining to rural exemptions; and (3) promulgate rules regarding preexisting agreements. The Supreme Court also reversed our decision to vacate 47 C.F.R. § 51.315(b). The Supreme Court did not address the part of our opinion vacating the superior quality rules, 47 C.F.R. §§ 51.305(a)(4) and 51.311(c), and the additional combination of network elements rule, 47 C.F.R. § 51.315(c)-(f).

On remand we must now review on the merits the FCC's forward-looking pricing methodology, proxy prices, and wholesale pricing provisions. The petitioners also request that the court vacate 47 C.F.R. § 51.317, regarding the identification of additional unbundled network elements, and that the court reaffirm its previous decision vacating the superior-quality rules and the additional combination of network elements rule. We also must review on the merits 47 C.F.R. § 51.405, regarding rural exemptions, and 47 C.F.R. § 51.303, pertaining to preexisting agreements.

II. Analysis

The United States Courts of Appeals have exclusive jurisdiction to review final orders of the FCC pursuant to 28 U.S.C. § 2342(1) and 47 U.S.C. § 402(a) (1994). In reviewing an agency's interpretation of a statute, we must defer to the agency only if its interpretation is consistent with the plain meaning of the statute or is a reasonable construction of an ambiguous statute. *See Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842-43 (1984). We will overturn an agency interpretation that conflicts with the plain meaning of the statute, *see id.*, is an unreasonable construction of an ambiguous statute, *see id.* at 844-45, or is arbitrary and capricious. *See* 5 U.S.C. § 706 (1994); *Chevron*,

467 U.S. at 844. In making our decision regarding reasonableness, the issue "is not whether the Commission made the best choice, or even the choice that this Court would have made, but rather 'whether the FCC made a reasonable selection from among the available alternatives.'" *Southwestern Bell Tel. Co. v. F.C.C.*, 153 F.3d 523, 559-60 (8th Cir.1998) (quoting *MCI Telecomms. Corp. v. FCC*, 675 F.2d 408, 413 (D.C.Cir.1982).

A. Pricing Methodology

Congress established pricing standards for the rates that may be charged by ILECs to their new local service competitors for interconnection and for the furnishing of network elements on an unbundled basis. The statute, in relevant part, states:

> (d) Pricing standards
>
> (1) Interconnection and network element charges Determinations by a State commission of the just and reasonable rate for the interconnection of facilities and equipment for purposes of subsection (c)(2) of section 251 of this title, and the just and reasonable rate for network elements for purposes of subsection (c)(3) of such section—
>
> (A) shall be--
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> (i) based on the cost (determined without reference to a rate-of-return or other ratebased proceeding) of providing the interconnection or network element (whichever is applicable), and
>
> (ii) nondiscriminatory, and
>
> (B) may include a reasonable profit.

47 U.S.C. § 252(d)(1).

The FCC promulgated various pricing rules to implement the Act. The FCC's pricing provisions that pertain to the pricing of interconnection and network elements utilize a forward-looking economic cost methodology that is based on the total element long-run incremental cost (TELRIC) of the

element. These costs are to be based on an ILEC's existing wire center locations using the most efficient technology available in the industry regardless of the technology actually used by the ILEC and furnished to the competitor. *See* First Report and Order ¶ 685. State commissions are to employ TELRIC to determine the price an ILEC may charge its competitors for the right to interconnect with the ILEC and/or to use the ILEC's network elements to compete with the ILEC in providing telephone services.

The petitioners contend the TELRIC method violates the plain language and purpose of the Act and represents arbitrary and capricious decision-making. The petitioners challenge TELRIC on four grounds.

1. Hypothetical Network Standard

In its First Report and Order, the FCC explained that forward-looking methodologies, like TELRIC, consider the costs that a carrier would incur in the future for providing the interconnection or unbundled access to its network elements. *See* First Report and Order ¶ 683. These costs either can be based on the most efficient network configuration and technology currently available, or on the ILEC's existing network infrastructures. See id. The FCC chose an approach which it says combined the two possibilities. *See id.* ¶ 685. Pursuant to § 252(d)(1), the FCC promulgated 47 C.F.R. § 51.505 entitled "Forward-looking economic cost." It states in part that "[t]he total element long-run incremental cost of an element should be measured based on the use of the most efficient telecommunications technology currently available and the lowest cost network configuration, given the existing location of the incumbent LEC's wire centers." 47 C.F.R. § 51.505(b)(1). The only nonhypothetical factor in the calculation is the use of the actual location of the ILEC's existing wire centers.

The petitioners assert that the hypothetical network standard upon which TELRIC's costs are based is contrary to the Act's plain language. Section 252(d)(1)(A)(i) requires the just and reasonable rates for network elements to be "based on

the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the interconnection or network element." *Id.* (emphasis added). The petitioners contend the language points inescapably to the actual costs the ILEC incurs for furnishing its existing network to the competitor either through interconnection or on an unbundled network element basis. However, the petitioners explain that the costs under the FCC's pricing methodology are those costs that would be incurred by a hypothetical carrier deploying a hypothetical network that is optimally efficient in technology and configuration. The petitioners argue that the FCC's hypothetical network standard does not reflect what they are statutorily required to furnish to their competitors and is, therefore, flatly contrary to the statute.

The respondents counter the petitioners' assertion that TELRIC costs are based on a hypothetical network. The respondents contend TELRIC does reflect the ILECs' costs but on a predictive forward-looking basis that assumes a reasonable level of efficiency. According to the respondents, setting rates based on the use of the most efficient technology available and on the lowest cost network configuration using existing wire center locations is consistent with the statute, promotes competition, and is a reasonable application of forward-looking costs.

The intervenors in support of the FCC (the intervenors) explain that costs should be based on what any firm, including the specific ILEC whose rates are to be set, would incur in providing the network elements today. They suggest these costs should be the replacement cost of the network using the technology available today and that no firm in a competitive market would charge rates based on the cost of reproducing obsolete technology. The intervenors contend that calculating the cost of old technology with current prices defeats the purpose of using a forward-looking methodology.

We agree with the petitioners that basing the allowable charges for the use of an ILEC's existing facilities and equipment (either through interconnection or the leasing of unbundled network elements) on what the costs would be if the

ILEC provided the most efficient technology and in the most efficient configuration available today utilizing its existing wire center locations violates the plain meaning of the Act. It is clear from the language of the statute that Congress intended the rates to be "based on the cost . . . of *providing the interconnection or network element*," *id.* (emphasis added), not on the cost some imaginary carrier would incur by providing the newest, most efficient, and least cost substitute for the actual item or element which will be furnished by the existing ILEC pursuant to Congress's mandate for sharing. Congress was dealing with reality, not fantasizing about what might be. The reality is that Congress knew it was requiring the existing ILECs to share their existing facilities and equipment with new competitors as one of its chosen methods to bring competition to local telephone service, and it expressly said that the ILECs' costs of providing those facilities and *that* equipment were to be recoverable by just and reasonable rates. Congress did not expect a new competitor to pay rates for a "reconstructed local network," First Report and Order ¶ 685, but for the existing local network it would be using in an attempt to compete.

It is the cost to the ILEC of providing its existing facilities and equipment either through interconnection or by providing the specifically requested existing network elements that the competitor will in fact be obtaining for use that must be the basis for the charges. The new entrant competitor, in effect, piggybacks on the ILEC's existing facilities and equipment. It is the cost to the ILEC of providing that ride on those facilities that the statute permits the ILEC to recoup. This does not defeat the purpose of using a forward-looking methodology as the intervenors assert. Costs can be forward-looking in that they can be calculated to reflect what it will cost the ILEC in the future to furnish to the competitor those portions or capacities of the ILEC's facilities and equipment that the competitor will use including any system or component upgrading that the ILEC chooses to put in place for its own more efficient use. In our view it is the cost to the ILEC of carrying the extra burden of the competitor's traffic that Congress entitled the ILEC to recover, and to that extent, the FCC's use of an incremental cost approach does no violence to the statute. At bottom, however, Congress has made it clear that it is the cost of

providing the actual facilities and equipment that will be used by the competitor (and not some state of the art presently available technology ideally configured but neither deployed by the ILEC nor to be used by the competitor) which must be ascertained and determined.

Consequently, we vacate and remand to the FCC rule 51.505(b)(1).

2. Use of a Forward-looking Methodology

The petitioners contend that the FCC's use of its forward-looking TELRIC methodology, which denies the ILECs recovery of their historical costs, is contrary to the express terms of the Act and is unreasonable. The petitioners state that the term "cost" plainly refers to historical cost and that the juxtaposition of "cost" in § 252(d)(1)(A)(i) with "profit" in § 252(d)(1)(B) confirms this. They refer to the discussion of profit in paragraph 699 of the First Report and Order as support for their proposition that if profit must be read in an accounting sense, then so too must cost. In addition, they assert the FCC failed to provide an adequate explanation for its rejection of historical costs and that an agency is not allowed to change ratemaking methodologies without cogently explaining why the change is being made.

The respondents argue the term "cost" is an elastic term that can be construed to mean either historical or forward-looking costs and that the FCC's interpretation of cost as forward-looking is reasonable. They clarify the discussion in the First Report and Order regarding profit. They explain that the FCC found that a normal profit, which TELRIC is designed to yield, represents a "reasonable profit" within the meaning of the statute and that the FCC has not construed profit to mean accounting profit. The respondents also argue the FCC explained in detail its decision to use forward-looking costs and that the decision was reasonable based on the new competitive objectives of the 1996 Act. The intervenors agree with the respondents that the term "cost" imposes no clear limits on the FCC's authority to establish a ratemaking methodology, and

according to their argument, it is in these circumstances that an agency is entitled to deference.

We respectfully disagree with the petitioners' contention that cost, as it is used in the statute, means historical cost. The statute simply states that rates "shall be based on the cost ... of providing the interconnection or network element." 47 U.S.C. § 252(d)(1)(A). We conclude the term "cost," as it is used in the statute, is ambiguous, and Congress has not spoken directly on the meaning of the word in this context. We agree with the assessment that "the word 'cost' is a chameleon, capable of taking on different meanings, and shades of meaning, depending on the subject matter and the circumstances of each particular usage." *Strickland v. Commissioner, Maine Dept. of Human Servs.*, 48 F.3d 12, 19 (1st Cir.1995), *cert. denied*, 516 U.S. 850 (1995).

The FCC has the authority to make rules to fill any gap in the Act left by Congress, provided the agency's construction of the statute is reasonable. *See Chevron*, 467 U.S. at 843. Likewise, "Congress is well aware that the ambiguities it chooses to produce in a statute will be resolved by the implementing agency." *AT & T Corp.*, 525 U.S. at 397 (citation to *Chevron* omitted). Forward-looking costs have been recognized as promoting a competitive environment which is one of the stated purposes of the Act. The Seventh Circuit, for example, explained, "[I]t is current and anticipated cost, rather than historical cost that is relevant to business decisions to enter markets ... historical costs associated with the plant already in place are essentially irrelevant to this decision since those costs are 'sunk' and unavoidable and are unaffected by the new production decision." *MCI Communications v. American Tel. & Tel. Co.*, 708 F.2d 1081, 1116-17 (7th Cir.1983), *cert. denied*, 464 U.S. 891 (1983). Here, the FCC's use of a forward-looking cost methodology was reasonable. The FCC sought comment on the use of forward-looking costs and concluded that forward-looking costs would best ensure efficient investment decisions and competitive entry. *See* First Report and Order ¶ 705. It is apparent that the FCC explained in detail its reason for selecting a forward-looking cost methodology to implement the new competitive goals of the

Act, and any past rejection of forward-looking methodologies was made in a monopoly, rather than a competitive, environment. *See* First Report and Order ¶¶ 618-711.

Additionally, we are unpersuaded by the petitioners' discussion of the juxtaposition of the word "profit" with "cost" in the statute. The FCC did not interpret profit as accounting[5] profit as the petitioners contend. The First Report and Order discusses only two types of profit: economic[6] and normal[7]. *See* First Report and Order ¶ 699. The FCC interpreted the word "profit" in the statute to mean "normal profit." The FCC found that TELRIC provides for a "normal" profit and that level of profit is reasonable within the meaning of the statute. Section 252(d)(1)(B) states only that the rates paid for either interconnection or furnishing unbundled access "may include a reasonable profit." The use of the word "may" indicates that the inclusion of a reasonable profit is not mandatory but permitted. Additionally, nothing in the phrase "may include a reasonable profit" suggests "cost" must mean historical costs. A "profit" can be made whether a historical cost or forward-looking cost methodology is used. We reiterate that a forward-looking cost calculation methodology that is based on the incremental costs that an ILEC actually incurs or will incur in providing the interconnection to its network or the unbundled access to its specific network elements requested by a

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[5] Accounting profit equals the difference between total revenue and explicit costs. Explicit costs are those costs incurred when a monetary payment is made. Accounting profit is typically higher than economic profit because accounting profit only subtracts explicit costs rather than the total opportunity costs. *See* Roger A. Arnold. Economics 484-85 (2d ed. 1992).

[6] Economic profit equals the difference between total revenue and total opportunity cost, including both explicit and implicit costs. Implicit costs represent the value of resources used for which no monetary payment is made. *See id.* Economic profit is also referred to as supranormal profit. *See* First Report and Order ¶ 699.

[7] Normal profit is achieved when a company earns revenue that is equal to its total opportunity costs. This is the level of profit needed for a company to cover all of its opportunity costs. Normal profit is the same as zero economic profit. *See* Arnold, supra *note* 5, at 485.

competitor will produce rates that comply with the statutory requirement of § 252(d)(1) that an ILEC recover its "cost" of providing the shared items.

3. Effect of Universal Service Subsidies

The petitioners submit that the failure to include the costs imposed by the government mandated subsidies in network element prices would frustrate the Act's objectives by forcing the ILECs to bear a disproportionate share of the universal service burdens. They explain that when an incumbent carrier provides to a competitor the network elements needed to serve a business customer, the costs to the incumbent not only include the costs of operating the particular network elements furnished but also the loss of that customer's contribution to support lower rates for others. The loss of that contribution, the petitioners argue, must be included in the determination of the rates charged the competitor for unbundled access to the ILEC's network elements.

The respondents and intervenors assert that allowing the ILECs to include the costs of universal service subsidies in its rates would violate the Act. They argue § 252(d)(1) requires rates to reflect the costs of providing the network elements, not the costs of universal service subsidies. Including those costs, according to the respondents, would violate that section of the Act. The respondents cite two decisions in which we concluded that the costs of universal services subsidies should not be included in the costs of providing the network elements. *See Competitive Telecomms. Ass'n v. F.C.C.*, 117 F.3d 1068, 1074-75 (8th Cir.1997); Southwestern Bell Tel. Co., 153 F.3d at 540.

In accordance with our previous opinions, we maintain our view that the costs of universal service subsidies should not be included in the costs of providing the network elements. Section 252(d)(1)(A)(1) requires rates to be cost- based. Universal service charges are not based on the actual costs of providing interconnection or the requested network element. *See Competitive Telecomms.*, 117 F.3d at 1073. "[P]ayment of cost-based rates represents full compensation to the incumbent

LEC for use of the network elements that carriers purchase." *Southwestern Bell*, 153 F.3d at 540 (quoting *In re Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing; End User Common Line Charges*, 12 FCCRcd 15982 (1997) ¶ 337). Including the costs of universal service subsidies would allow for double recovery. *See id.*

4. Takings Argument

The petitioners contend the use of the TELRIC method to set rates raises a serious Fifth Amendment takings issue that the statute should be construed to avoid. The petitioners challenge the pricing rules as mandating invalid confiscatory rates. The petitioners insist the statute must be read so that an ILEC receives just and reasonable compensation in the constitutional sense for the services it provides to its competitors.

The respondents argue that the claim that the use of TELRIC will constitute a taking is not ripe for judicial consideration because, at this point, it is unknown whether the rates established under TELRIC will constitute just and reasonable compensation. In addition, the intervenors point out that TELRIC compensates the ILECs for the present market value of the property taken which is all that is constitutionally required for just and reasonable compensation.

Because we have vacated 47 C.F.R. § 51.505(b)(1), we have some doubt that we need to address the argument that TELRIC also violates the Constitution. Our remand to the FCC of the TELRIC rule should result in a new rule for determining the compensation that the ILECs will receive for the new competitor's use of the ILEC's property--a rule that should accurately determine the actual costs to the ILEC of furnishing its network (either by interconnection or on an unbundled element basis) to its competitors together with a permitted reasonable profit. Whether the new rule will result in rates that do not provide just and reasonable compensation cannot be foretold. However, in the event our view of TELRIC's statutory invalidity turns out to be incorrect, and to avoid as best we can

another remand, we proceed further with the petitioners' constitutional assertions.

In our earlier opinion we determined that the ILECs' claims that the FCC's unbundling rules constituted an unconstitutional taking were not ripe for adjudication. *See Iowa Utils. Bd.*, 120 F.3d at 818. We did so principally on the basis that the rates for the unbundled access were to be set by the state commissions, that the actual rates were largely yet unknown, and that the Act provided for a mechanism (arbitration before the state commissions and review in federal district court) to determine what the just and reasonable rates would be in individual cases. That ripeness conclusion was not attacked in the Supreme Court. While we recognize that the argument made here (that TELRIC itself, because it is based on a hypothetical network using the most efficient technology available which bears little or no resemblance to the ILEC's property which will be actually made available to competitors, must result in rates that are neither just nor reasonable, and confiscatory in the constitutional sense) is not the same one we addressed in our earlier opinion, we conclude for many of the same reasons we expressed before, *see id.*, that the present takings claim is not ripe for review.[8]

The Constitution protects public utilities from rates which are "so unjust as to be confiscatory." *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 307 (1989). However, a takings claim cannot be based on the ratemaking methodology, but rather it must be based on the rate itself. "It is not theory but the impact of the rate order which counts." *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591, 602 (1944). Until the actual rates are established, we cannot conclude whether the

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[8] We note, with no small amount of interest, that the Supreme Court has granted certiorari to review the Fifth Circuit's decision in *Texas Office of Pub. Util. Counsel v. FCC*, 183 F.3d 393 (5th Cir.1999), where the Fifth Circuit noted that the use of a forward-looking cost model to determine universal service subsidies did not result in an unconstitutional taking. *GTE Service Corp. v. FCC*, 68 U.S.L.W. 3496 (U.S. June 5, 2000) (No. 99-1244).

impact of TELRIC driven rates will constitute a taking. "It is not enough that a party merely speculates that a government action will cause harm." *Alenco Communications, Inc. v. F.C.C.*, 201 F.3d 608, 624 (5th Cir.2000). We do not need to disregard Chevron deference and interpret the statute in accordance with the petitioners' views in order to avoid an unconstitutional taking in this instance. The possibility that a regulatory program may result in a taking does not justify the use of a narrowing construction. *See United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 128-29 (1985). In such circumstances, the adoption of a narrowing construction might frustrate a potentially permissible application of a statute. *See id.* at 128. Because the consequences of the FCC's choice to use TELRIC methodology cannot be known until the resulting rates have been determined and applied, the constitutional claim is not ripe. *See Duquesne*, 488 U.S. at 317 (Scalia, White, and O'Connor, JJ., concurring) (noting that the Constitution looks to the consequences produced rather than the technique employed).

B. Wholesale Rates

Section 252(d)(3) of the Act provides that state commissions "shall determine wholesale rates on the basis of retail rates charged to subscribers for the telecommunications service requested, excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by the local exchange carrier." Pursuant to this section, the FCC promulgated 47 C.F.R. § 51.607 which excludes "avoided retail costs" from wholesale rates. "Avoided retail costs" are defined by the FCC as "those costs that reasonably can be avoided when an incumbent LEC provides a telecommunications service for resale at wholesale rates to a requesting carrier." 47 C.F.R. § 51.609(b).

The petitioners challenge the FCC's interpretation of the term "avoided retail costs." The petitioners contend § 252(d)(3) plainly requires wholesale rates to reflect the ILECs' retail rates less those costs that an ILEC actually avoids when it loses its retail customers to a reselling competitor. However, under the FCC's definition of "avoided retail costs," the

petitioners argue the FCC requires them to exclude all retailing costs rather than only those costs that an ILEC actually avoids. The petitioners state that many costs associated with retailing are fixed and will not begin to decline initially nor will the costs decline proportionately to the number of customers lost to the reseller. The petitioners explain the phrase "will be avoided" in § 252(d)(3) means "actually avoided" because otherwise the wholesale discount given the reseller would be inflated.

The respondents counter that the phrase "will be avoided" is ambiguous and that the FCC reasonably interpreted the language of the statute. The intervenors explain that the ILECs avoid incurring any retailing costs when engaging in wholesale transactions, and even if certain retailing costs are fixed, the ILECs would still incur only those costs that arose in connection with the ILECs' retailing activities. The respondents state that making competitors pay for a portion of the ILECs' retailing costs, even though the new entrant is not the cause of those retail costs, would result in the new entrants subsidizing the ILECs' retail offerings while still having to pay the new entrants' own retailing costs.

We agree with the petitioners that the phrase "will be avoided" refers to those costs that the ILEC will actually avoid incurring in the future, because of its wholesale efforts, not costs that "can be avoided." The verb "will" is defined, in part, as "a word of certainty." Black's Law Dictionary 1598 (6th ed.1990). Whereas, the verb "can" is "[o]ften used interchangeably with 'may,'" *id.* at 206, and may is a word "of speculation and uncertainty." Id. at 1598. The language of the statute is clear. Wholesale rates shall exclude "costs that will be avoided by the local exchange carrier." 47 U.S.C. § 252(d)(3). The plain meaning of the statute is that costs that are actually avoided, not those that could be or might be avoided, should be excluded from the wholesale rates.

If the Congress had meant the standard to be one of reasonable avoidability, it could have easily said so. We note that Congress's starting point in § 252(d)(3) is the retail rates the ILEC charges its subscribers for the same service the new

competitor (who wants to enter the market by reselling) has requested be furnished to it. From those retail rates, the ILEC's costs that "will be avoided" by furnishing those services to the competitor are to be excluded. The statute recognizes that the ILEC will itself remain a retailer of telephone service with its own continuing costs of providing that retail telephone service. The FCC's rule treats the ILEC as if it were strictly a wholesaler whose sole business is to supply local telephone service in bulk to new purveyors of retail telephone service. Under the statute as it is written, it is only those continuing costs of providing retail telephone service which will be avoided by selling to the competitor the services it requests which are to be excluded. The FCC's rule is contrary to the statute.

Consequently, we vacate and remand rule 51.609.

C. Proxy Prices

The FCC established proxy prices to be used for interconnection and network element charges, wholesale rates, and the rates for termination and transport. The state commissions are to use these proxy prices if they do not use the provided ratemaking method to establish rates. The proxy prices consist of upper limits higher than which the rates set by the state commissions shall not go.

The petitioners argue the proxy prices should be vacated for three reasons. First, the petitioners state that the respondents expressly disavowed the proxy prices before the Supreme Court in order to support the FCC's position that it was not trying to set specific prices, but rather it was merely designing a pricing methodology. Therefore, the FCC, according to the petitioners, is judicially estopped from trying to revive the proxy prices now. Second, the petitioners contend the proxy prices should be vacated because they are based on the unlawful TELRIC method and employ the impermissible definition of "avoided retail costs." Third, the petitioners argue the proxy prices were developed using unreliable cost models and, as a result, are arbitrary and capricious.

The respondents counter that the petitioners' challenge to the proxy prices is not subject to review because the proxy prices are not binding on the states. The respondents contend that states may elect to use the proxy prices, but the states are not required to use them. The respondents insist that this court has jurisdiction to review only final orders of the FCC, and the proxy prices are not final orders because they do not impose an obligation on the states. The intervenors add that substantial deference should be accorded to the FCC because the issue concerns interim relief, citing *Competitive Telecommunications Association v. F.C.C.*, 117 F.3d 1068, 1073-75 (8th Cir.1997).

We agree with the petitioners that the respondents are estopped from trying to now revive the proxy prices. "The doctrine of judicial estoppel prohibits a party from taking inconsistent positions in the same or related litigation." *Hossaini v. Western Missouri Med. Ctr.*, 140 F.3d 1140, 1142 (8th Cir.1998). Judicial estoppel is invoked "to protect the integrity of the judicial process." *Id.* at 1143. The FCC represented to the Supreme Court that it was not establishing rates and depriving the state commissions of their role in implementing the Act. *See* Reply Br. for Federal Pet'rs at 7, *AT & T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999) 1998 WL 396961 (Nos. 97- 826, 97-829, 97-830, 97-831, 97-1075, 97-1087, 97-1099, and 97-1141). The FCC emphasized that it was merely providing a methodology for state commissions to use in completing the "critical and complex task of determining the economic costs of an efficient telephone network." *Id.* The FCC dismissed the proxy prices as "designed for a past period in which no cost studies could have been made available to the state commissions. They have no relevance to this case." *Id.* at 7 n.5.

We are not persuaded by the FCC's explanation to this court of its position before the Supreme Court. The respondents explain that the proxy prices were not relevant to the ILECs' claim before the Supreme Court that the pricing rules intruded on the states' role in establishing rates because the proxy prices were optional. The First Report and Order very clearly commands the use of the proxy prices by directing that "a state commission *shall* use [default proxies] . . . in the

period before it applies the pricing methodology." First Report and Order ¶ 619 (emphasis added). Additionally, rule 51.503(b) states that the ILECs' rates for its elements "*shall* be established" using either TELRIC or the proxy prices. *See* 47 C.F.R. § 51.503(b) (emphasis added). The word "shall" is language of a mandatory nature . *Clark v. Brewer*, 776 F.2d 226, 230 (8th Cir.1985). It is clear from the language of the First Report and Order, as well as the rules, that the state commissions are to use the proxy prices until the state commissions have established their own rates using the TELRIC method. The use of the proxy prices until such time is not optional.

The Supreme Court held that the FCC "has jurisdiction to design a pricing methodology." *AT & T Corp.*, 525 U.S. at 385. However, the FCC does not have jurisdiction to set the actual prices for the state commissions to use. Setting specific prices goes beyond the FCC's authority to design a pricing methodology and intrudes on the states' right to set the actual rates pursuant to §252(c)(2). Following the Supreme Court's opinion, we now agree with the FCC that its role is to resolve "general methodological issues," and it is the state commission's role to exercise its discretion in establishing rates. Br. for Federal Pet'rs at 26-27, *AT & T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999), 1998 WL 396945 (No. 97-831).

The proxy prices are also infirm because they rely on the hypothetical most efficient carrier rationale which we have found to be violative of the Act, *ante* at 5-8, and because they rely on the erroneous definition of "avoided retail costs."

We conclude the proxy prices cannot stand and, for the foregoing reasons, vacate rules 51.513, 51.611, and 51.707.

D. Unbundling Rules

The FCC issued numerous rules to implement the ILECs' duties to provide unbundled access to their network elements under subsection 251(c)(3). Many of these rules were

previously challenged. In light of the Supreme Court's opinion, we revisit three of the unbundling rules.

1. Identification of Additional Unbundled Network Elements

The Supreme Court vacated 47 C.F.R. § 51.319 which required the ILECs to provide requesting carriers with unbundled access to a minimum of seven network elements so long as access was "necessary" and failure to provide the access would "impair" the competitors' ability to provide services. The Supreme Court vacated 47 C.F.R. § 51.319 because the FCC's interpretation of the "necessary" and "impair" standard was too broad and unreasonable. *See AT & T Corp.*, 525 U.S. at 388-92.

The ILECs request that we now vacate rule 51.317 because it utilizes the same "necessary" and "impair" standard of rule 51.319. The Supreme Court did not specifically address the validity of rule 51.317. This court previously upheld the "necessary" and "impair" standard, but we vacated the portion of rule 51.317 that created the presumption that a network element must be unbundled if it is technically feasible to do so.

The respondents concede that rule 51.317 must be remanded to the FCC as a result of the Supreme Court's opinion. *See* Resp'ts' Br. at 87 n. 42. Therefore, we vacate rule 51.317 without any further discussion.

2. Superior Quality Rules

In our previous opinion, we vacated 47 C.F.R. §§ 51.305(a)(4) and 51.311(c), collectively known as the superior quality rules. These rules require an ILEC to provide, upon request, interconnection and unbundled network elements that are superior in quality to that which the ILEC provides to itself. The Supreme Court did not address these rules.

The petitioners ask us to reaffirm our previous decision vacating the superior quality rules. They contend the Supreme Court's decision did not affect our conclusion that the superior

quality rules violated the Act because the FCC did not seek a review of our prior decision vacating these rules.

The respondents argue that the Supreme Court affirmed the FCC's general authority to adopt rules implementing the Act and that under this general authority the superior quality rules are valid. The intervenors agree and explain that because nothing in the Act forecloses the superior quality rules, the rules should be reinstated.

We again conclude the superior quality rules violate the plain language of the Act. We further conclude that nothing in 47 U.S.C. §§ 154(i), 201(b), or 303(r) gives the FCC the power to issue regulations contrary to the plain language of the Act. As we were correctly reminded at oral argument that this court is not a "super FCC," neither is the FCC an alter ego Congress free to change the words of a statute from "at least equal in quality" to "superior in quality" when it exercises its rule-making power. Subsection 251(c)(2)(C) requires the ILECs to provide interconnection "that is at least equal in quality to that provided by the local exchange carrier to itself...." Nothing in the statute requires the ILECs to provide superior quality interconnection to its competitors. The phrase "at least equal in quality" establishes a minimum level for the quality of interconnection; it does not require anything more. We maintain our view that the superior quality rules cannot stand in light of the plain language of the Act for all the reasons we previously expressed. *See Iowa Utils. Bd.*, 120 F.3d at 812-13. We also note that it is self-evident that the Act prevents an ILEC from discriminating between itself and a requesting competitor with respect to the quality of the interconnection provided.

3. Additional Combinations Rule

In our previous opinion, we also vacated 47 C.F.R. § 51.315(c)-(f), the additional combinations rule. This rule requires an ILEC to perform the functions necessary to combine unbundled network elements in any technically feasible manner. Although the Supreme Court reversed our decision to vacate 47 C.F.R. § 51.315(b), prohibiting the ILECs

from separating requested network elements that are already combined, the Supreme Court did not address subsections (c)-(f).

The petitioners request that we reaffirm our prior decision vacating the additional combinations rule. The petitioners state that the Supreme Court's decision to reinstate 51.315(b) does not call into question this court's decision to vacate 51.315(c)-(f). The petitioners explain 51.315(b) is different because it prohibited ILECs from separating previously combined network elements over the objection of the requesting carrier. The additional combinations rule contained in subsections (c)-(f), on the other hand, requires the ILECs to combine their own network elements in new ways or with elements provided by the requesting carriers. They argue the additional combinations rule violates the Act.

In addition to the respondents' argument regarding the general rulemaking authority of the FCC, they assert this court's decision to vacate rules 51.315(c)-(f) was predicated on language rejected by the Supreme Court when it reinstated rule 51.315(b). In reinstating subsection (b), the Supreme Court emphasized the ambiguous nature of § 251(c)(3) regarding the separation of leased network elements. *See AT & T Corp.*, 525 U.S. at 395. Because of this ambiguity, the Supreme Court concluded, subsection (b) is rationally based on the nondiscrimination language in § 251(c)(3). *See id.* The respondents rely on the same nondiscrimination language to support subsections (c)-(f) because without these subsections, they argue, new entrants would incur higher costs for unbundled network elements than the ILECs incur. The intervenors agree that the policy concerns of ensuring against an anticompetitive practice not only support 47 C.F.R. § 51.315(b) but also subsections (c)-(f).

We are not persuaded by the respondents' contention that the Supreme Court's reinstatement of rule 51.315(b) affects our decision to vacate subsections (c)- (f). Nor do we agree with the Ninth Circuit that the Supreme Court's opinion undermined our rationale for invalidating the additional combinations rule. *See U.S. West Communications v. MFS Intelenet, Inc.*, 193 F.3d

1112, 1121 (9th Cir.1999), *cert. denied*, 68 U.S.L.W. 3669 (U.S. June 29, 2000) (No. 99- 1641). The Ninth Circuit misinterpreted our decision to vacate subsections (c)- (f). We did not, as the Ninth Circuit suggests, employ the same rationale for invalidating subsections (c)-(f) as we did in invalidating subsection (b). *See MCI Telecomms. v. U.S. West*, 204 F.3d 1262, 1268 (9th Cir.2000) ("The Eighth Circuit invalidated Rules 315(c)-(f) using the same rationale it employed to invalidate Rule 315(b). That is, the Eighth Circuit concluded that requiring combination was inconsistent with the meaning of the Act because the Act calls for 'unbundled' access.") Rather, the issue we addressed in subsections (c)-(f) was *who* shall be required to do the combining, not whether the Act prohibited the combination of network elements. *See Iowa Utils. Bd* ., 120 F.3d at 813.

Rule 51.315(b) prohibits the ILECs from separating previously combined network elements before leasing the elements to competitors. The Supreme Court held that 51.315(b) is rational because "[section] 251(c)(3) of the Act is ambiguous on whether leased network elements may or must be separated." *AT & T Corp.*, 525 U .S. at 395. Therefore, under the second prong of *Chevron*, the Supreme Court concluded 51.315(b) was a reasonable interpretation of an ambiguous statute.

Unlike 51.315(b), subsections (c)-(f) pertain to the combination of network elements. Section 251(c)(3) specifically addresses the combination of network elements. It states, in part, "An incumbent local exchange carrier shall provide such unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide such telecommunication service." Here, Congress has directly spoken on the issue of who shall combine previously uncombined network elements. It is the requesting carriers who shall "combine such elements." It is not the duty of the ILECs to "perform the functions necessary to combine unbundled network elements in any manner" as required by the FCC's rule. *See* 47 C.F.R. §51.315(c). We reiterate what we said in our prior opinion: "[T]he Act does not require the incumbent LECs to do all the work." *Iowa Utils. Bd.*, 120 F.3d

at 813. Under the first prong of *Chevron*, subsections (c)-(f) violate the plain language of the statute. We are convinced that rules 51.315(c)-(f) must remain vacated.

E. Rural Exemptions

Congress enacted § 251(f) to relieve the small and rural ILECs from some of the obligations imposed by other subsections of § 251. The FCC promulgated 47 C.F.R. § 51.405 to establish standards that the state commissions must follow in determining whether the small and rural ILECs are entitled to the exemption, suspensions, or modifications set forth in § 251(f).

The petitioners contend rule 51.405 cannot be reconciled with the language of the statute. They challenge the rule on three grounds. First, they argue the rule eliminates two of the three prerequisites that must be satisfied before a state commission may terminate an exemption. Second, they disagree with the limitation the rule places on the statutory phrase "unduly economically burdensome." Third, they suggest that the rule impermissibly shifts the burden of proof in exemption proceedings.

1. Prerequisites for Terminating an Exemption

Section 251(f)(1)(A) explains that a state commission may terminate an exemption for a rural telephone company if a request for interconnection, services, or network elements "is not unduly economically burdensome, is technically feasible, and is consistent with section 254 of this title (other than subsections (b)(7) and (c)(1)(D) thereof)." The FCC promulgated 47 C.F.R. §1.405 pursuant to § 251(f). The rule requires the ILECs to offer evidence that the application of the requirements under § 251(c) "would be likely to cause undue economic burden beyond the economic burden that is typically associated with efficient competitive entry" in order to justify exemption. 47 C.F.R. § 51.405(c).

The petitioners contend the rule is invalid because it alters the statutorily-mandated criteria that must be met in order for

a state commission to terminate a rural ILEC's exemption. The petitioners point out that rule 51.405 refers only to the "unduly economically burdensome" prerequisite for termination rather than the above-mentioned three criteria.

The respondents argue that the rule does not eliminate any statutory criteria regarding rural exemptions. The respondents explain it was not the FCC's intent, nor was it within the FCC's power, to eliminate any statutory requirements. The respondents suggest that state commissions will look to the statute itself, in addition to the FCC's rule, when implementing § 251(f). They further claim that the FCC has stated in a later order that rule 51.405(c) "does not in any way affect a state's responsibility to consider all three of the factors set forth in section 251(f)(1)(A)," citing to an order entered when the Rural Telephone Coalition sought a stay of rule 51.405(c). *See In re Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 11 FCCRcd 20166 (1996) ¶ 15.

We agree with the petitioners that the rule impermissibly disregards two of the three statutory requirements that must be met before a state commission can terminate an exemption. A state commission looking at rule 51.405(c) would conclude that if a rural ILEC had failed to show an undue economic burden, the exemption must be terminated, regardless of the existence of the ILEC's companion defenses of technical infeasibility and/or inconsistency with § 254 of the Act. A rule that permits such a result represents an arbitrary and unreasonable interpretation of the governing statute.

2. Undue Economic Burden

Rule 51.405 also refers to the statutory requirement that a request for interconnection, unbundled elements, or retail services for resale must not cause an undue economic burden in order to justify termination of an exemption under § 251(f)(1) or to justify the denial of a petition for suspension or modification under § 251(f)(2). The rule interprets the statutory phrase "unduly economically burdensome" as "undue economic burden beyond the economic burden that is typically

associated with efficient competitive entry." 47 C.F.R. § 51.405(c), (d).

The petitioners argue that the rule's interpretation of the statutory language is unreasonable because it does not allow state commissions to consider the total actual economic burden that competitive entry could impose on a small or rural ILEC. The petitioners explain that the phrase "unduly economically burdensome" indicates Congress intended state commissions to consider any type of economic burden that might be imposed by such a request, including those burdens associated with efficient entry.

The respondents assert that the FCC interpreted "unduly economically burdensome" to refer to something more than the economic burden that commonly or ordinarily occurs upon efficient competitive entry because otherwise exemption, suspension, or modification would be virtually automatic. The respondents submit that Congress did not intend to preclude competitive entry into small or rural markets; rather Congress intended to protect the small or rural ILECs from only those § 251(b) or § 251(c) requirements that might be unfair or inappropriate.

We agree with the petitioners that the FCC has unreasonably interpreted the phrase "unduly economically burdensome." We owe no deference to an agency's interpretation that would "frustrate the congressional policy underlying a statute." *Bureau of ATF v. Fed. Labor Relations Auth.*, 464 U.S. 89, 97 (1983) (quoting *NLRB v. Brown*, 380 U.S. 278, 291-92 (1965)). In the Act, Congress sought both to promote competition and to protect rural telephone companies as evidenced by the congressional debates. *See* 142 Cong. Rec. S687-01 (Feb. 1, 1996) (statements by Sen. Hollings and Sen. Burns); 142 Cong. Rec. H1145-06 (Feb. 1, 1996) (statement by Rep. Orton). It is clear that Congress intended that all Americans, including those in sparsely settled areas served by small telephone companies, should share the benefit of the lower cost of competitive telephone service and the benefits of new telephone technologies, which the Act was designed to provide. It is also clear that Congress exempted the rural

ILECs from the interconnection, unbundled access to network elements, and resale obligations imposed by § 251(c), unless and until a state commission found that a request by a new entrant that the ILEC furnish it any of § 251(c)'s methods to compete in the rural ILEC's market is (1) not unduly economically burdensome, (2) technically feasible, and (3) consistent with § 254. *See* 47 U.S.C. § 251(f)(1). Likewise, Congress provided for the granting of a petition for suspension or modification of the application of the requirements of § 251(b) or (c) if a state commission determined that such suspension or modification is necessary to avoid (1) a significant adverse economic impact, (2) imposing a requirement that is unduly economically burdensome, and (3) imposing a requirement that is technically infeasible; and is consistent with the public interest, convenience, and necessity. *See* 47 U.S.C. § 251(f)(2).

There can be no doubt that it is an economic burden on an ILEC to provide what Congress has directed it to provide to new competitors in § 251(b) or § 251(c). Because the small and rural ILECs, while they may be entrenched in their markets, have less of a financial capacity than larger and more urban ILECs to meet such a request, the Congress declared that their statutorily-granted exemption from doing so should continue unless the state commission found all three prerequisites for terminating the exemption, or determined that all prerequisites for suspension or modification were met in order to grant an ILEC affirmative relief. It is the full economic burden on the ILEC of meeting the request that must be assessed by the state commission. The FCC's elimination from that assessment of the "economic burden that is typically associated with efficient competitive entry" substantially alters the requirement Congress established. By limiting the phrase "unduly economically burdensome" to exclude economic burdens ordinarily associated with competitive entry, the FCC has impermissibly weakened the broad protection Congress granted to small and rural telephone companies. We have found no indication that Congress intended such a cramped reading of the phrase. If Congress had wanted the state commissions to consider only that economic burden which is in excess of the burden ordinarily imposed on a small or rural ILEC by a

competitor's requested efficient entry, it could easily have said so. Instead, its chosen language looks to the whole of the economic burden the request imposes, not just a discrete part.

Nor do we think the consideration of the whole economic burden occasioned by the request will result in state commissions "automatically" continuing the exemption, or "automatically" granting a petition for suspension or modification. In making their determination of "unduly economically burdensome," the state commissions will undoubtedly take into their judgment the fact that the ILEC will be paid for the cost of meeting the request and may also receive a reasonable profit pursuant to § 252(d). Subsections (c) and (d) of rule 51.405 are an unreasonable interpretation of the statute's requirement that a § 251(b) or § 251(c) request made by a competitor must not be "unduly economically burdensome" to the small or rural ILEC.

3. Burden of Proof

Rule 51.405 also requires the rural ILEC to offer evidence to the state commission to prove that it is entitled to a continuing exemption. The rule states, "Upon receipt of a bona fide request for interconnection, services, or access to unbundled network elements, a rural telephone company must prove to the state commission that the rural telephone company should be entitled, pursuant to section 251(f)(1) of the Act, to continued exemption from the requirements of section 251(c) of the Act." 47 C.F.R. § 51 .405(a).

The petitioners contend the FCC has improperly placed the burden of justifying a continued exemption on the ILECs. The petitioners discuss the language in 47 U.S.C. § 251(f)(1)(A), which states "[s]ubsection (c) of this section shall not apply to a rural telephone company until (i) such company has received a bona fide request for interconnection, services, or network elements. . . ." This language, they explain, indicates that the ILECs are automatically exempt from subsection (c) until a request has been made, and once a request is made, the burden is on the party making the request to prove that the request is not unduly economically burdensome, is technically feasible,

and is consistent with § 254. They also assert the burden of proof lies with the proponent of the order according to the Administrative Procedure Act. *See* 5 U.S.C. § 556(d) (1994).

The respondents argue it was reasonable to place the burden on the rural ILECs because the default rule is for the state commission to deny the exemption unless the state commission affirmatively finds a reason to continue the exemption. The respondents rely on the Senate conference report on the Act which explains that a state commission must rule on the continuation of an exemption within 120 days, "and, if no exemption is granted," then the state commission must establish a schedule for compliance. S. Conf. Rep. No. 104-230, at 122 (1996). The respondents emphasize the word "granted" implies that a state commission will only grant an exemption if there is a specific reason to do so.

We agree with the petitioners that the rule impermissibly places the burden of proof on the ILECs. The statute states that the requirements of § 251(c) "shall not apply to a rural telephone company *until*" a request has been made. 47 U.S.C. § 251(f)(1)(A) (emphasis added). The use of the word "until" suggests that the rural telephone companies have a continuing exemption that is only terminated once a bona fide request is made, provided the request is not unduly economically burdensome, is technically feasible, and is consistent with § 254. Although the conference report refers to state commissions granting an exemption, the language of a conference report does not trump the language of a statute. *See Sierra Club v. Clark*, 755 F.2d 608, 615 (8th Cir. 1985). The language of the statute uses the word "terminate" not "grant." See 47 U.S.C. § 251(f)(1)(B). The plain meaning of the statute requires the party making the request to prove that the request meets the three prerequisites to justify the termination of the otherwise continuing rural exemption.

For the foregoing reasons, we vacate rule 51.405(a), (c), and (d).

F. Preexisting Agreements

Congress enacted § 252 of the Act to establish procedures for state commissions to approve agreements between ILECs and competing telecommunication carriers arrived at through negotiation or arbitration. Section 252(a) requires agreements entered into pursuant to § 251(c)(1)'s duty to negotiate to be submitted to the state commissions for approval. Section 252(a)(1) states:

> Upon receiving a request for interconnection, services, or network elements pursuant to section 251 of this title, an incumbent local exchange carrier may negotiate and enter into a binding agreement with the requesting telecommunications carrier or carriers without regard to the standards set forth in subsections (b) and (c) of section 251 of this title. The agreement shall include a detailed schedule of itemized charges for interconnection and each service or network element included in the agreement. The agreement, including any interconnection agreement negotiated before February 8, 1996, shall be submitted to the State commission under subsection (e) of this section.

The FCC promulgated 47 C.F.R. § 51.303 which requires all interconnection[9] agreements, even those that predate the 1996 Act, to be submitted to the state commissions for approval. The rule states, "All interconnection agreements between an incumbent LEC and a telecommunications carrier, including those negotiated before February 8, 1996, shall be submitted by the parties to the appropriate state commission for approval. . . ." 47 C.F.R. § 51.303(a).

The petitioners argue that the rule violates the explicit language of the Act because, while the Act references agreements entered into pursuant to § 251, the rule applies to *all* agreements, even those entered into years before the Act

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[9] We note that the term "interconnection" has been defined by the FCC as "the physical linking of two networks for the mutual exchange of traffic." First Report and Order ¶ 26.

was passed. The petitioners explain that agreements negotiated and entered into pre-1996 could not have been entered into "pursuant to section 251" because § 251 did not exist at that time, and therefore, only agreements that were either negotiated before the Act and formally entered into after the Act, or agreements that were both negotiated and formally entered into after the Act, must be submitted for approval.

The respondents contend that the agreement referred to in the third sentence of § 252(a)(1) is not limited to the agreement mentioned in the first and second sentences. The first and second sentences, they argue, refer to agreements reached pursuant to § 251, while the agreement mentioned in the third sentence refers to all, including pre-Act, agreements. The respondents explain that the term "negotiated" in the phrase set off by commas in the third sentence means a completed negotiation or, in other words, a negotiation that has resulted in a completed interconnection agreement.

We agree with the petitioners that the rule is contrary to the language of the Act. The respondents attempt to isolate the third sentence of § 252(a)(1) from the prior two sentences. The FCC concluded "that the final sentence of section 252(a)(1), which requires that *any* interconnection agreement must be submitted to the state commissions, can and should be read to be independent of the prior sentences in section 252(a)(1)." First Report and Order ¶ 166. This is not a proper construction because "we must not be guided by a single sentence or member of a sentence, but look to the provisions of the whole law, and to its object and policy." *United States Nat'l Bank of Oregon v. Independent Ins. Agents*, 508 U.S. 439, 455 (1993).

The subsection in question begins by making reference to a competitor's "request ... pursuant to section 251." Upon receiving such a request, the competitor and the ILEC "may negotiate and enter into a binding agreement" without regard for the interconnection and unbundled network element access standards of § 251(b) and (c). The second sentence requires that the agreement so negotiated and entered into contain a detailed schedule of itemized charges for the items covered by the "agreement." The third sentence begins with the words,

"[t]he agreement" (which can only mean the same agreement authorized by the first sentence and referred to in the second sentence) and requires that it be submitted to the state commission for approval pursuant to subsection (e).

The phrase in the third sentence set off by commas, which reads, "including any interconnection agreement negotiated before February 8, 1996," serves as the co-subject of the verb form "shall be submitted" and explains and defines what else besides the "agreement" mentioned in the first two sentences of the section must be submitted to the state commission. The "what else" that must be submitted to the state commission for approval is any interconnection agreement "negotiated" before February 8, 1996.

Congress was aware that many states were already exploring and experimenting with ways to open up local telephone markets to competition, and that telephone carriers were involved with each other in negotiations for those purposes prior to and at the time of the Act's passage. *See, e.g.*, S. Rep. No. 104-23, at 5 (1995). By using the phrase "including any interconnection agreement negotiated before February 8, 1996," Congress brought within the sphere of required state commission approval all interconnection agreements entered into after February 8, 1996, including specifically those whose terms were arrived at by negotiation prior to that date but which had not yet been formally entered into by the parties. Because that unique group of interconnection agreements (those that were negotiated before but not yet entered into by February 8, 1996) could not have been agreements prompted or originated by either a request made under the Act or by the duty to negotiate contained in the Act (as the Act was not yet in existence at the time they were being negotiated), they could not be an "agreement" covered by the first two sentences and the first two words of the third sentence of § 252(a)(1). Nevertheless, because their subject matter, interconnection, was one which the Act was intended to compel, and because they would be entered into after the effective date of the Act, it was logical for Congress to want them subject to the Act's provisions. The use of the statutory language "including any interconnection agreement negotiated

before February 8, 1996" also eliminated any argument that the agreeing carriers could have made in order to avoid state commission approval that their agreement had been negotiated before the Act's date and, therefore, was not subject to it.

We also think it of some significance that Congress intentionally used both the terms "negotiate" and "enter into" in the first sentence of § 252(a)(1) but only used the verb "negotiated" in the third sentence. Had Congress wanted to include all interconnection agreements that had been both negotiated and entered into before the Act's effective date within the scope of the third sentence, all it had to do was use the same words it had used in the first sentence. *See Kifer v. Liberty Mut. Ins. Co.*, 777 F.2d 1325, 1333 n. 9 (8th Cir. 1985) (" 'When the same word or phrase is used in the same section of an act more than once, and the meaning is clear as used in one place, it will be construed to have the same meaning in the next place.' ") (quoting *United States v. Nunez*, 573 F.2d 769, 771 (2d Cir.), *cert. denied*, 436 U.S. 930 (1978)). It did not, and its choice not to do so reinforces our conclusion that Congress did not intend to do so. *See, e.g., Johnson v. United States*, 120 S.Ct. 1795, 1803 (2000) (When Congress means the same consequences, it is "natural for Congress to write in like terms.").

Across the country there were thousands of interconnection agreements existing between and among ILECs before the Act was passed. In Wisconsin alone the state commission estimated that there were over 3,000 pre-Act agreements which, under the FCC's construction of § 252, would now have to be submitted for approval. *See* Addendum to Br. of Pet'rs United States Telephone Ass'n et al. at 9. Many of those agreements were between neighboring noncompeting ILECs for the exchange of features and functions. There is no indication that Congress intended the state commissions to go back through years of agreements and approve or disapprove them. We conclude that Congress knew it was already giving the state commissions a huge amount of new work to do in arbitrating and approving the new agreements that would quickly be coming into being by virtue of the substantive provisions of the Act, and that it did not intend to add an even heavier burden by

forcing the state commissions to replow old ground. The FCC's construction of the statute is unreasonable.

We further find it difficult to square the FCC's interpretation with the recognized presumption against retroactive legislation. By construing the word "negotiated" in the third sentence to mean "negotiated and entered into," the FCC's rule reaches back and requires something that the parties to the preexisting agreement had no reason to expect--required state commission approval under new and different standards which affect the rights the parties had at the time they entered into their agreement. *See Landgraf v. USI Film Prods.*, 511 U.S. 244, 280 (1994). Here again Congress's choice not to use the words "entered into" in the third sentence tells us that Congress did not intend the retroactive effect the FCC has given to the Act. Absent clear Congressional intent for retroactive effect, there should be none. *See id.* By making the Act applicable to interconnection agreements that were only negotiated before the Act's effective date (but not yet entered into), Congress gave the parties the option of either proceeding to enter into the negotiated agreement with the knowledge it would have to be submitted to the state commission for approval, or not. In so doing, an unwanted retroactive effect can be avoided, the parties can proceed knowing what the law will be, and the effect of the Act is entirely prospective.

We hold that § 252(a)(1) applies to any agreement which was either (1) both negotiated and entered into pursuant to § 251 after the Act went into effect or (2) is an interconnection agreement that was negotiated before, but not yet entered into when, the Act went into effect.
Consequently, we vacate rule 51.303.

III. Conclusion

We grant the pending petitions for review in part. For the reasons stated, we vacate, in total, 47 C.F.R. §§ 51.505(b)(1), 51.609, 51.513, 51.611, 51.707, 51.317, 51.405(a), (c), and (d), and 51.303. We remain firm in our previous decision to vacate 47 C.F.R. §§ 51.305(a)(4) and 51.311(c) (the superior quality rules) and 47 C.F.R. § 51.315(c)-(f) (the additional

combinations rule). In all other respects, we deny the petitions for review.

A true copy.

Attest:

Clerk, U.S. Court of Appeals, Eighth Circuit

APPENDIX B

The following is a list of involved parties not already mentioned in Appendix A:

Ad Hoc Telecommunications Users Committee;
ACC Corporation;
Aging Forum Inc. d/b/a National Silver Haired Congress;
Airtouch Communications, Inc.;
Alabama Public Service Commission;
Aliant Communications Co.;
Allied Associated Partners;
ALLTEL Telephone Service Corp.;
America's Carriers Telecommunications Association;
American Communications Services, Inc.;
American Public Communications Council, Inc.;
Ameritch Corporation;
Anaheim, California Public Utilities Department;
Arkansas Public Service Commission;
Association for Local Telecommunications Industry Associates;
AT&T Corporation;
BellSouth Corporation;
Cable and Wireless, Inc.;
Cincinnati Bell Telephone Company;
Citizens Telephone Company of Kecksburg;
City of Long Beach, California;
City of Manassas, Virginia;
College for Living;
Comcast Corporation;
Competition Policy Institute;
Competitive Telecommunications Associations;
Concord Telephone Company;
Consumer Federation of America;
Consumers' Utility Counsel Division, Governor's Office of Consumer Affairs;
Contel of California, Inc.;
Contel of Minnesota, Inc.;
Contel of the South, Inc.;
Council of Silver Haired Legislatures;
Cox Communications, Inc.;

Dakota Public Utilities Commission;
Department of Public Utilities of the Commonwealth of Massachusetts;
Department of Public Utility Control;
Excel Telecommunications, Inc.;
Florida Public Service Commission;
Frontier Corporation;
Geld Information Systems;
General Communications, Inc.;
Georgia Public Service Commission;
GST Telecom, Inc.;
GTE Alaska, Incorporated;
GTE Arkansas, Incorporated;
GTE Midwest, Incorporated;
GTE Services Corporation;
GTE Southwest, Incorporated;
Honorable Thomas J. Bliley, Jr.;
Honorable Rick Boucher;
Honorable John D. Dingell;
Honorable Dennis Hastert;
Honorable Ernest F. Hollings;
Honorable Daniel K. Inouye;
Honorable Trent Lott;
Honorable Edward J. Markey;
Honorable Ted Stevens;
Honorable W.J. (Billy) Tauzin;
ICG Telecom Croup, Inc.;
Information Technology Industry Council;
Independent Telephone and Telecommunications Alliance;
Jones Intercable, Inc.;
Kansas Corporation Commission;
Kentucky Public Service Commission;
KMC Telecom, Inc.;
Louisiana Public Service Commission;
Maryland Public Service Commission;
Metrocall, Inc.;
MFS Communications Co., Inc.;
MCI Telecommunications Corporation;
Mid-Sized Incumbent Local Exchange Carriers;
Minnesota Independent Coalition;
Minnesota Public Utilities Commission;

Mississippi Public Service Commission;
Missouri Council of the Blind;
Missouri Public Service Commission;
National Association of Regulatory Utility Commissioners;
National Association of State Utility Consumer Advocates;
National Cable Television Association;
National Rural Telecom Association;
National Telephone Cooperative Association;
New England Telephone and Telegraph Co.;
New Mexico State Corporation Commission;
New York State Department of Public Service;
New York Telephone Co.;
NextLink Communications, L.L.C.;
NextWave Telecom, Inc.;
North Carolina Utilities Commission;
North State Telephone Company;
Oklahoma Corporation Commission;
Oregon Public Utility Commission;
Organization for the Promotion and Advancement of
Small Telecommunications Companies;
Pacific Telesis Group;
Pacific Telecom, Inc.;
Paging Network, Inc.;
Paraquad Rural Advocates for Independent Living;
Pennsylvania Public Utility Commission;
People of the State of California;
People of the State of New York;
Personal Communications, Inc.;
Presidents' Club for Telecommunications Justice;
Pronet, Inc.;
Public Service Commission of the State of Connecticut;
Public Service Commission of the State of Montana;
Public Service Commission of the State of New York;
Public Service Commission of the State of South Carolina;
Public Service Commission of the State of Wisconsin;
Public Service Commission of the State of Wyoming;
Public Utilities Commission of the State of California;
Public Utilities Commission of the State of Colorado;
Public Utilities Commission of the State of Hawiia;
Qwest Communications;
Rhode Island Public Utility Commission;

Rock Hill Telephone Company;
Roseville Telephone Company;
Rural Telecommunications Group;
Rural Telephone Coalition;
SBC Communications Inc.;
Service for Independent Living;
Small Cable Business Association;
South Dakota Public Utilities Commission;
Southern New England Telephone Company;
Sprint Communications Company;
Sprint Corporation;
Sprint PCS;
Sprint Spectrum, L.P.;
State of Texas;
Telecommunications, Inc.;
Telecommunications Resellers Association;
Teleport Communications Group, Inc.;
Tennessee Regulatory Authority;
Texas Office of Public Utility Counsel;
Time Warner Communications Holdings Inc.;
U.S. One Communications Services;
United States Coalition on Aging;
United States Telecom Association;
United States Telephone Association;
Utah Department of Commerce, Division of Public Utilities;
Vanguard Cellular Systems, Inc.;
Verizon Communications Inc.;
Verizon California Inc. (f/k/a GTE California Incorporated);
Verizon Florida Inc. (f/k/a GTE Florida Incorporated);
Verizon South Inc. (f/k/a GTE South Incorporated);
Verizon North Inc. (f/k/a GTE North Incorporated);
Verizon Northwest Inc. (f/k/a GTE Northwest Incorporated);
Verizon Hawaiian International Inc. (f/k/a GTE Hawaiian Telephone Company Incorporated);
Verizon West Coast Inc. (f/k/a GTE West Incorporated);
Virginia State Corporation Commission;
Western Alliance;
Western Wireless Corporation;
WinStar Communications, Inc.;
WorldCom, Inc..

APPENDIX C

Federal Communications Commission

First Report and Order

IN THE MATTER OF IMPLEMENTATION OF THE LOCAL COMPETITION PROVISIONS IN THE TELECOMMUNICATIONS ACT OF 1996
CC Docket No. 96-98

Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers
CC Docket No. 95-185

FCC 96-325

Adopted: August 1, 1996
Released: August 8, 1996

By the Commission: Chairman Hundt and Commissioners Quello, Ness, and Chong issuing separate statements.

* * * *

F. Provision of a Telecommunications Service Using Unbundled Network Elements

* * * *

3. Discussion

292. Under section 251(c)(3), incumbent LECs must provide access to "unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide" a telecommunications service.[619] We agree with the Illinois Commission, the Texas Public Utility Counsel, and others that this language bars incumbent LECs from imposing

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[619] 47 U.S.C. § 251(c)(3).

limitations, restrictions, or requirements on requests for, or the sale or use of, unbundled elements that would impair the ability of requesting carriers to offer telecommunications services in the manner they intend. For example, incumbent LECs may not restrict the types of telecommunications services requesting carriers may offer through unbundled elements, nor may they restrict requesting carriers from combining elements with any technically compatible equipment the requesting carriers own. We also conclude that section 251(c)(3) requires incumbent LECs to provide requesting carriers with all of the functionalities of a particular element, so that requesting carriers can provide any telecommunications services that can be offered by means of the element. We believe this interpretation provides new entrants with the requisite ability to use unbundled elements flexibly to respond to market forces, and thus is consistent with the procompetitive goals of the 1996 Act.

293. We agree with AT&T and Comptel that the quoted text in section 251(c)(3) bars incumbent LECs from separating elements that are ordered in combination, unless a requesting carrier specifically asks that such elements be separated. We also conclude that the quoted text requires incumbent LECs, if necessary, to perform the functions necessary to combine requested elements in any technically feasible manner either with other elements from the incumbent's network, or with elements possessed by new entrants, subject to the technical feasibility restrictions discussed below. We adopt these conclusions for two reasons. First, in practice it would be impossible for new entrants that lack facilities and information about the incumbent's network to combine unbundled elements from the incumbents' network without the assistance of the incumbent. If we adopted NYNEX's proposal, we believe requesting carriers would be seriously and unfairly inhibited in their ability to use unbundled elements to enter local markets. We therefore reject NYNEX's contention that the statute requires requesting carriers, rather than incumbents, to combine elements. We do not believe it is possible that Congress, having created the opportunity to enter local telephone markets through the use of unbundled elements, intended to undermine

that opportunity by imposing technical obligations on requesting carriers that they might not be able to readily meet.

294. Second, given the practical difficulties of requiring requesting carriers to combine elements that are part of the incumbent LEC's network, we conclude that section 251(c)(3) should be read to require incumbent LECs to combine elements requested by carriers. More specifically, section 251(c)(3) provides that incumbent LECs must provide unbundled elements "in a manner that allows requesting carriers to combine them" to provide a telecommunications service. We believe this phrase means that incumbents must provide unbundled elements in a way that enables requesting carriers to combine them to provide a service. The phrase "allows requesting carriers to combine them," does not impose the obligation of physically combining elements exclusively on requesting carriers. Rather, it permits a requesting carrier to combine the elements if the carrier is reasonably able to do so. If the carrier is unable to combine the elements, the incumbent must do so.[620]

295. Our conclusion that incumbent LECs must combine unbundled elements when so requested is consistent with the method we have adopted to identify unbundled network elements. Under our method, incumbents must provide, as a single, combined element, facilities that could comprise more than one element. This means, for example, that, if the states require incumbent LECs to provision subloop elements, incumbent LECs must still provision a local loop as a single, combined element when so requested, because we identify local loops as a single element in this proceeding.[621]

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[620] In this context, we conclude that the term "combine" means connecting two or more unbundled network elements in a manner that would allow a requesting carrier to offer the telecommunications service it seeks to offer.

[621] See infra, Section V.J.

VII. PRICING OF INTERCONNECTION AND UNBUNDLED ELEMENTS

A. Overview

618. The prices of interconnection and unbundled elements, along with prices of resale and transport and termination, are critical terms and conditions of any interconnection agreement. If carriers can agree on such prices voluntarily without government intervention, these agreements will be submitted directly to the states for approval under section 252. To the extent that the carriers, in voluntary negotiations, cannot determine the prices, state commissions will have to set those prices. The price levels set by state commissions will determine whether the 1996 Act is implemented in a manner that is *pro-competitor* and favors one party (whether favoring incumbents or entrants) or, as we believe Congress intended, pro-competition. As discussed more fully in Section II.D. above, it is therefore critical to implementing Congress's pro-competitive, de-regulatory national policy framework to establish among the states a common, pro-competition understanding of the pricing standards for interconnection and unbundled elements, resale, and transport and termination. While such a common interpretation might eventually emerge through judicial review of state arbitration decisions, we believe that such a process could delay competition for years and require carriers to incur substantial legal costs.[1490] We therefore conclude that, to expedite the development of fair and efficient competition, we must set forth rules now establishing this common, pro-competition understanding of the 1996 Act's pricing standards. Accordingly, the rules we adopt today set forth the methodological principles for states to use in setting prices. This section addresses interconnection and unbundled elements, and subsequent sections address resale and transport and termination, respectively.

[1490] For a discussion of our legal authority to adopt national pricing rules, *see supra*, Section II.D.

619. While every state should, to the maximum extent feasible, immediately apply the pricing methodology for interconnection and unbundled elements that we set forth below, we recognize that not every state will have the resources to implement this pricing methodology immediately in the arbitrations that will need to be decided this fall. Therefore, so that competition is not impaired in the interim, we establish default proxies that a state commission shall use to resolve arbitrations in the period before it applies the pricing methodology. In most cases, these default proxies for unbundled elements and interconnection are ceilings, and states may select lower prices. In one instance, the default proxy we establish is a price range. Once a state sets prices according to an economic cost study conducted pursuant to the cost-based pricing methodology we outline, the defaults cease to apply. In setting a rate pursuant to the cost-based pricing methodology, and especially when setting a rate above a default proxy ceiling or outside the default proxy range, the state must give full and fair effect to the economic costing methodology we set forth in this Order and must create a factual record, including the cost study, sufficient for purposes of review after notice and opportunity for the affected parties to participate.

620. In the following sections, we first set forth generally, based on the current record, a cost-based pricing methodology based on forward-looking economic costs, which we conclude is the approach for setting prices that best furthers the goals of the 1996 Act. In dynamic competitive markets, firms take action based not on embedded costs, but on the relationship between market- determined prices and forward-looking economic costs. If market prices exceed forward-looking economic costs, new competitors will enter the market. If their forward-looking economic costs exceed market prices, new competitors will not enter the market and existing competitors may decide to leave. Prices for unbundled elements under section 251 must be based on cost under the law, and that should be read as requiring that prices be based on forward-looking economic costs. New entrants should make their decisions whether to purchase unbundled elements or to build their own facilities based on the relative economic costs of these options. By contrast, because the cost of building an

element is based on forward-looking economic costs, new entrants' investment decisions would be distorted if the price of unbundled elements were based on embedded costs. In arbitrations of interconnection arrangements, or in rulemakings the results of which will be applied in arbitrations, states must set prices for interconnection and unbundled network elements based on the forward-looking, long-run, incremental cost methodology we describe below. Using this methodology, states may not set prices lower than the forward- looking incremental costs directly attributable to provision of a given element. They may set prices to permit recovery of a reasonable share of forward-looking joint and common costs of network elements.[1491] In the aftermath of the arbitrations and relying on the state experience, we will continue to review this costing methodology, and issue additional guidance as necessary.

621. We reject various arguments raised by parties regarding the recovery of costs other than forward-looking economic costs in section 251(c)(2) and (c)(3) prices, including the possible recovery of: (1) embedded or accounting costs in excess of economic costs; (2) incumbent LECs' opportunity costs; (3) universal service subsidies; and (4) access charges. As discussed in Section VII.B.2.a. below, certain portions of access charges may continue to be collected for an interim period in addition to section 251(c)(3) prices.

622. With respect to prices developed under the forward-looking, cost-based pricing methodology, we conclude that incumbent LECs' rates for interconnection and unbundled elements must recover costs in a manner that reflects the way they are incurred. We adopt certain rules that states must follow in setting rates in arbitrations. These rules are designed to ensure the efficient cost- based rates required by the 1996 Act.

[1491] We define these and other forward-looking cost concepts *infra*, Section VII.B.2.a. We define what we consider to be a reasonable share of forward-looking joint and common costs *infra*, Section VII.B.2.a.

623. In the next section of the Order, we establish default proxies that states may elect to use prior to utilizing an economic study and developing prices using the cost-based pricing methodology. We recognize that certain states may find it difficult to apply an economic costing methodology within the statutory time frame for arbitrating interconnection disputes. We therefore set forth default proxies that will be relatively easy to apply on an interim basis to interconnection arrangements. We discuss with respect to particular unbundled elements the reasonable rate structure for those elements and the particular default proxies we are establishing for use pending our adoption of a generic forward-looking cost model. Finally, we discuss the following additional matters: generic forward-looking costing models that we intend to examine further by the first quarter of 1997 in order to determine whether any of those models, with modifications, could serve as better default proxies; the future adjustment of rates; the relationship of unbundled element prices to retail prices; and the meaning of the statutory prohibition against discrimination in sections 251 and 252.

624. Those states that have already established methodologies for setting interconnection and unbundled rates must review those methodologies against the rules we are adopting in this Order. To the extent a state's methodology is consistent with the approach we set forth herein, the state may apply that methodology in any section 252 arbitration. However, if a state's methodology is not consistent with the rules we adopt today, the state must modify its approach. We invite any state uncertain about whether its approach complies with this Order to seek a declaratory ruling from the Commission.

B. Cost-Based Pricing Methodology

625. As discussed more fully in Section II.D. above, although the states have the crucial role of setting specific rates in arbitrations, the Commission must establish a set of national pricing principles in order to implement Congress's national policy framework. For the reasons set forth in the preceding section and as more fully explained below, we are adopting a cost-based methodology for states to follow in setting

interconnection and unbundled element rates. In setting forth the cost-based pricing methodology for interconnection and access to unbundled elements, there are three basic sets of questions that must be addressed. First, does the 1996 Act require that the same standard apply to the pricing of interconnection provided pursuant to section 251(c)(2), and unbundled elements provided pursuant to section 251(c)(3)? Second, what is the appropriate methodology for establishing the price levels for interconnection and for each unbundled element, how should costs be defined, and is the price based on economic costs, embedded costs, or other costs? Third, what are the appropriate rate structures to be used to set prices designed to recover costs, including a reasonable profit? We address each of these questions in the following sections.

1. Application of the Statutory Pricing Standard

a. Background

626. In the NPRM, we proposed that any pricing principles we adopt should be the same for interconnection and unbundled network elements because sections 251(c)(2) and (c)(3) and 252(d)(1) use the same pricing standard.[1492] We invited parties to comment on this issue and to justify any proposed distinction in the priority for interconnection and unbundled network elements. We also stated our belief that the same pricing rules that apply to interconnection and unbundled network elements should also apply to collocation under section 251(c)(6) of the 1996 Act.

b. Comments

627. Commenters generally agree that any pricing rules adopted by the Commission for interconnection and unbundled elements should be the same.[1493] These parties assert that any

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[1492] NPRM at para. 122.

[1493] *See, e.g.*, Citizens Utilities comments at 16 n.14; Ohio Commission comments at 42; Teleport comments at 46.

pricing rules the Commission ultimately adopts should not, therefore, create incentives to substitute or arbitrage one type of classification for another. Commenters also generally agree that the pricing rules the Commission adopts for interconnection and unbundled elements should also apply to collocation.[1494] Many of these parties agree that collocation is a subset of the interconnection arrangements contemplated by sections 251(c)(2) and 252(d)(1).[1495] On the other hand, a few parties contend that the pricing standards contained in section 252(d)(1) for interconnection and unbundled elements do not apply to collocation provided under section 251(c)(6).[1496] BellSouth argues that the Commission should not adopt any national standards for virtual collocation.[1497] Other commenters, including some that oppose the establishment of pricing rules by the Commission, argue that, to the extent that the Commission adopts national standards for collocation, they should generally follow those established in the Commission's *Expanded Interconnection* proceeding in CC Docket No. 91-141.[1498]

c. Discussion

628. Sections 251(c)(2) and (c)(3) impose an identical duty on incumbent LECs to provide interconnection and access to network elements "on rates, terms, and conditions that are just,

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[1494] *E.g.*, ACSI comments at 16; ALTS comments at 34-35; Citizens Utilities comments at 16 n.14; Colorado Commission comments at 34; MCI comments at 54, 61; MFS comments at 30; NEXTLINK comments at 26; PacTel comments at 63; Sprint comments at 42; Teleport comments at 46.

[1495] *See, e.g.*, Citizens Utilities comments at 16 n.14; Colorado Commission comments at 34; MFS comments at 30; NEXTLINK comments at 26.

[1496] *See, e.g.*, SNET comments at 24 n.44.

[1497] BellSouth comments at 23.

[1498] *See, e.g.*, Bell Atlantic comments at 32-34.

reasonable, and nondiscriminatory."[1499] In addition, both interconnection and unbundled network elements are made subject to the same pricing standard in section 252(d)(1). Based on the plain language of sections 251(c)(2), (c)(3), and section 252(d)(1), we conclude that Congress intended to apply the same pricing rules to interconnection and unbundled network elements. The pricing rules we adopt shall, therefore, apply to both.

629. We further conclude that, because section 251(c)(6) requires that incumbent LECs provide physical collocation on "rates, terms, and conditions that are just, reasonable, and nondiscriminatory," which is identical to the standard for interconnection and unbundled elements in sections 251(c)(2) and (c)(3), collocation should be subject to the same pricing rules.[1500] We also note that, because collocation is a method of obtaining interconnection and access to unbundled network elements, collocation is properly treated under the same pricing rules. This legal conclusion that there should be a single set of pricing rules for interconnection, unbundled network elements, and collocation provides greater consistency and guidance to the industry, regulators, and the courts. Moreover, it reduces the regulatory burdens on state commissions of developing and applying different pricing rules for collocation, interconnection, and unbundled network elements. We note that our adoption of this single set of pricing rules should minimize regulatory burdens, conflicts, and uncertainties associated with multiple, and possibly inconsistent rules, thus facilitating competition on a reasonable and efficient basis minimizing the economic impact of our rules for all parties, including small entities and small incumbent LECs.[1501]

[1499] 47 U.S.C. § 251(c)(2), (c)(3).

[1500] *See supra*, Section VI.B.

[1501] *See* Regulatory Flexibility Act, 5 U.S.C. §§ 601 *et seq.*

2. Rate Levels

a. Pricing Based on Economic Cost

(1) Background

630. We observed in the NPRM that economists generally agree that prices based on forward-looking long-run incremental costs (LRIC) give appropriate signals to producers and consumers and ensure efficient entry and utilization of the telecommunications infrastructure.[1502] We noted, however, that there was a lack of general agreement on the specifics of methodology for deriving prices based on LRIC or total service long-run incremental cost (TSLRIC). We invited parties to comment on whether we should require the states to employ a LRIC-based pricing methodology and to explain with specificity the costing methodology they support.[1503] We recognized, however, that prices based on LRIC might not permit recovery of forward-looking costs if there were significant forward-looking joint and common costs among network elements.[1504] We sought comment on how, if rates are set above incremental cost, to deal with the problems inherent in allocating common costs and any other overheads.[1505] We observed that, by defining the unbundled elements at a sufficiently aggregated level, it may be possible to reduce the costs to be allocated as joint and common by identifying a substantial portion of costs as incremental to a particular element. To the extent that joint and common costs cannot be entirely eliminated, we sought comment on various methodologies for assigning them, including the use of a fixed allocator or on the basis of inverse demand elasticity. We also sought comment on whether, regardless of the method of

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[1502] NPRM at para. 124.

[1503] *Id.* at para. 126.

[1504] *Id.* at para. 129.

[1505] *Id.* at para. 130.

allocating common costs, we should limit rates to levels that do not exceed stand-alone costs.[1506] Finally, we invited parties to comment on whether a LRIC-based methodology would establish a price for interconnection and unbundled network elements that includes a reasonable profit and thus complies with section 252(d)(1).[1507]

631. A number of states already employ, or have plans to utilize, some form of LRIC or TSLRIC methodology in their approach to setting prices for unbundled network elements,[1508] with several states choosing LRIC or TSLRIC as a price floor.[1509] For instance, the Connecticut Commission adopted a TSLRIC methodology to measure the cost of service of SNET, its principal incumbent LEC.[1510] Arizona also requires

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[1506] *Id.* For a definition of stand-alone costs, *see* Section VII.B.2.a. *infra*.

[1507] 47 U.S.C. § 252(d)(1)(A)(i); NPRM at para. 129.

[1508] *See, e.g.*, California Commission comments at 29 (California has adopted TSLRIC as the standard for developing the costs of unbundled elements and in a rulemaking this summer will determine the unbundled network elements and what level of shared and common costs should be included in the price of each); Michigan Commission comments at 13 (1996 prices for loops to remain at levels established by the Michigan Commission in its original interconnection order or at TSLRIC); Texas Commission comments at 22 (Texas Commission has employed LRIC-based pricing methodologies for many years; SWBT and GTE required to file LRIC cost studies to be used in pricing not later than November 1, 1996).

[1509] *See, e.g.*, Colorado Commission comments at Attachment (Rules Prescribing Principles for Costing and Pricing of Regulated Services of Telecommunications Service Providers) 4 CCR 723-30, Rules 4-5; Hawaii Administrative Rules, Sections 6-80-32-34 (setting out a three-tiered pricing regime with TSLRIC set as floor for pricing of competitive services); Louisiana Commission comments at Attachment (Louisiana Public Service Commission "Regulations for Competition in the Local Telecommunications Market"), p.30; Washington Commission comments at 25, Appendix B (*Washington Utilities and Transportation Commission v. U S West Communications*, Docket No. UT-950200 at 82 (Washington Commission, April 11, 1996)); Wisconsin Stat. Ann. section 196.204 (requiring the price of each network service or function to exceed TSLRIC).

[1510] Connecticut Commission comments at 4.

incumbent LECs to conduct TSLRIC cost studies to establish the underlying cost of unbundled services and facilities.[1511] The Ohio Commission has adopted Long Run Service Incremental Cost ("LRSIC"), which is closely related to TSLRIC.[1512] The Missouri and Wyoming Commissions are among a number of state commissions that have not yet adopted a pricing methodology, but are considering LRIC or TSLRIC.[1513] Oklahoma law provides for submission of LRIC cost studies and studies identifying a contribution to common costs for interconnection of facilities and access to network elements to the Oklahoma Commission during an arbitration.[1514] A number of states have yet to choose a pricing methodology. For instance, the New York Commission sets prices on a case-by-case basis.[1515] Unbundled element prices also exist in several states pursuant to negotiated interconnection agreements that have either already been approved by state commissions or are under consideration.[1516]

[1511] Arizona Commission comments, Exhibit V (Arizona Administrative Code R14-2-1101 *et seq.*), p.10.

[1512] *See* Ohio Commission comments at 43-45.

[1513] *See, e.g.*, Missouri Commission comments at 11 (supports LRIC for costing; LRIC is defined in pending state legislation); Wyoming Commission comments at 26-27 (draft rules propose use of TSLRIC as a price floor, with prices to include a contribution to shared, common, and joint costs, and the sum of prices for unbundled elements not to exceed retail for bundled services; incumbent LECs shall impute the prices of unbundled elements into the price floors of each of their own services that utilize the network elements).

[1514] Oklahoma Commission comments at Appendix A (Corporation Commission Telephone Rules OAC 165:55-17-25), pp. 10-11.

[1515] *Competition, The State Experience* at 80 (compilation of written responses by state commission staffs to questions by FCC staff, compiled by NARUC) (March 8, 1996).

[1516] According to information in our possession, such agreements have been negotiated in, among other states, Alabama, Florida, Georgia, Kentucky, Illinois, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee. Letter from W.W. Jordan, Executive Director -- Federal Regulatory, BellSouth, to William F. Caton, Acting Secretary, July 11, 1996

632. Section 252(d)(1) requires, *inter alia*, that rates for interconnection and unbundled network elements be based on "cost (determined without reference to a rate-of-return or other rate-based proceeding)."[1517] We tentatively concluded in the NPRM that this language precludes states from setting rates by use of traditional cost-of service regulation, with its detailed examination of historical carrier investment and expenses.[1518] Instead, we indicated our belief that the statute contemplates the use of other forms of cost-based price regulation, such as the setting of prices based on forward-looking economic cost methodologies (such as LRIC) that do not involve the use of an embedded rate base. We sought comment on whether section 252(d)(1) forecloses consideration of historical or embedded costs or merely prohibits state commissions from conducting a traditional rate-of-return proceeding to establish prices for interconnection and unbundled network elements. Embedded costs are the costs that the incumbent LECs carry on their accounting books that reflect historical purchase prices, regulatory depreciation rates, system configurations, and operating procedures. We invited parties to comment on whether incumbent LECs should be permitted to recover some portion of their historical or embedded costs over TSLRIC.[1519]

633. In the NPRM, we noted that certain incumbent LECs had advocated that interconnection and access to unbundled element prices be based on the "efficient component pricing

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at Attachment (containing chart detailing agreements between BellSouth and new entrants in Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee); "Interconnection Agreement Under Sections 251 and 252 of the telecommunications Act of 1996, by and between, Ameritech Information Industry Services and MFS Intelenet of Illinois, Inc.," dated May 17, 1996 (filed July 25, 1996).

[1517] 47 U.S.C. § 252(d)(1)(B).

[1518] NPRM at para. 123.

[1519] *Id.* at para. 129.

rule" (ECPR).[1520] Under this approach, an incumbent LEC that sells an essential input element, such as interconnection, to a competing network would set the price of that input element equal to "the input's direct per-unit incremental costs plus the opportunity cost to the input supplier of the sale of a unit of input."[1521] We tentatively concluded in the NPRM that ECPR or equivalent methodologies are inconsistent with the section 252(d)(1) requirement that rates be based on "cost," and we proposed to preclude the states from using this methodology.[1522]

634. Section 254 requires the Commission and the Joint Board established thereunder to ensure that "[a]ll providers of telecommunications service . . . make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service . . . ." That section further provides that "[t]here should be specific, predictable, and sufficient Federal and State mechanisms to preserve and advance universal service."[1523] The Conference Committee also explained that these provisions require any such universal service support payment to be, to the extent possible, "explicit, rather than implicit as many support mechanisms are today."[1524] In the NPRM, we sought comment on whether "it would be consistent with sections 251(d)(1) and 254 for states to include any universal service costs or subsidies in the rates they set for

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[1520] *Id.* at para. 147. *See* William J. Baumol, *Some Subtle Issues in Railroad Deregulation*, 10 Int'l J. Trans. Econ. 341 (1983); William Baumol & Gregory Sidak, *Toward Competition in Local Telephony* (1994); William Baumol & Gregory Sidak, *The Pricing of Inputs Sold to Competitors*, 11 Yale J. on Reg. 171 (1994).

[1521] William Baumol & Gregory Sidak, *The Price of Inputs Sold to Competitors*, 11 Yale J. on Reg. 171, 178.

[1522] NPRM at para. 148.

[1523] 47 U.S.C. § 254(b)(4) and (b)(5).

[1524] Joint Explanatory Statement at 130-31. "In keeping with the conferees' intent that universal service support should be clearly identified, [section 254(e)] states that such support should be made explicit." *Id.* at 131; *see also* 47 U.S.C. s 254(e).

interconnection, collocation, and unbundled network elements."[1525] In particular, we discussed the "play or pay" system adopted by the state of New York in which interconnectors that agree to serve all customers in their self-defined service areas ("players") potentially pay a substantially lower interconnection rate than those that serve only selected customers ("payers") and are, therefore, liable to pay additional contribution charges.[1526] We noted that the statutory schedule for the completion of the universal service reform proceeding (15 months from the enactment of the 1996 Act) is different from that for this proceeding (6 months from the date of enactment of the 1996 Act). We asked whether the ability of states to take universal service support into account differs pending completion of the section 254 Joint Board proceeding or state universal service proceedings, pursuant to section 254(f), during any transition period that may be established in the section 254 proceeding or thereafter.[1527]

(2) Comments

635. Forward-Looking Costs. Most new entrants and IXCs agree that prices for interconnection and unbundled elements should be based on forward-looking, economic costs.[1528] Many state commissions also argue that, if federal pricing rules are adopted, forward-looking methodologies should serve as the

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[1525] NPRM at para. 145.

[1526] *Id.*

[1527] *Id.*

[1528] *See, e.g.*, ACSI comments at 54-55; AT&T comments at 47; Jones Intercable comments at 25-26; LDDS comments at 60; MCI comments at 59, 61; NEXTLINK comments at 27; Sprint comments at 43-44; Teleport comments at 46; Telecommunications Resellers Ass'n comments 38-39; *see also* Ad Hoc Telecommunications Users Committee comments at 31-34; DoJ comments at 27-32; Frontier comments at 21-22; Texas Public Utility Counsel comments at 33-34; Attorneys General reply at 3; NCTA reply at 18-20; NTIA reply at 17-18 n.35.

basis for establishing rates in a competitive environment.[1529] The Department of Justice contends that pricing above forward-looking economic costs would subject competitors to substantial risk of a price squeeze because the real cost of a network element for the incumbent LEC will be its forward-looking economic cost, while the cost to the new entrant will be the higher price charged for the element by the LEC.[1530] Parties favoring a forward- looking, incremental cost methodology argue that it is the appropriate pricing standard for several reasons. First, such an approach simulates the prices for network elements that would result if there were a competitive market for the provision of such elements to other carriers.[1531] In such a market, these parties argue, competition would drive prices to forward-looking costs, even if such costs were lower than a firm's historical costs.[1532] Second, unbundled element prices based on forward-looking economic costs prevent incumbent LECs from exploiting their market power at the expense of their competitors that are dependent on the incumbent LEC's facilities.[1533] Third, a forward-looking incremental cost methodology creates the right investment incentives for competitive facilities-based entry and creates incentives for the market to move towards competition while preserving opportunities for competition even if some network elements prove to be resistant to competition.[1534] Fourth, a

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[1529] *See, e.g.*, New York Commission comments at 3-4; Missouri Commission comments at 11; Kentucky Commission comments at 4-5; Wyoming Commission comments at 27-28; Ohio Commission comments at 41-43.

[1530] DoJ comments at 28-31.

[1531] *See, e.g.*, DoJ comments at 28-29.

[1532] *See, e.g.*, AT&T comments at Appendix C (Affidavit of William J. Baumol, Janusz A. Ordover, and Robert D. Willig), p.5; DoJ comments at 28-29.

[1533] *See, e.g.*, DoJ comments at 30.

[1534] *See, e.g.*, AT&T comments at Appendix C (Affidavit of William J. Baumol, Janusz A. Ordover, and Robert D. Willig), p.7; DoJ comments at 29; NCTA comments at Appendix B (Unbundling, Interconnection, and

pricing methodology based on forward-looking economic costs minimizes the incumbent LECs' opportunities to engage in anticompetitive cross-subsidization that could delay the emergence of effective competition.[1535] Finally, these parties argue that pricing based on forward-looking economic costs will lead to lower prices for consumers.[1536]

636. While many commenters agree that the proper economic cost standard for interconnection and unbundled elements is one based on forward-looking LRIC, the record indicates a lack of consensus on the precise definition of such a methodology. While many parties, including some incumbent LECs, favor a pricing methodology based on TSLRIC,[1537] others contend that LRIC provides the appropriate basis for pricing interconnection and unbundled elements.[1538] AT&T argues that, because incumbent LECs will be providing access to unbundled network elements and interconnection, and not merely the individual services that use those elements, the relevant question is the incumbent LEC's cost of producing the entire

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Traffic Exchange: The Pricing of Access to Local Exchange Networks), p. 22.

[1535] *See, e.g.*, DoJ comments at 30-31.

[1536] *See, e.g.*, DoJ comments at 28-31.

[1537] *See, e.g.*, Ad Hoc Telecommunications Users Committee comments at 34-36; AT&T comments at 47-48; ALTS comments at 35-36; Ameritech comments at 63-64 (but must include recovery of joint, common, and residual costs); CFA/CU comments at 26-32 (including a contribution to joint and common costs); Citizens Utilities comments at 18; Comcast comments at 23; CompTel comments at 67-71; Competition Policy Institute comments at 8; DoJ comments at 28-31 (including any joint and common costs); Frontier comments at 21-22; Intermedia comments at 14; LDDS comments at 56, 62; MCI comments at 60-61; NCTA comments at 49-50; Ohio Consumers' Counsel comments at 24-25 (including a markup over TSLRIC to reflect a reasonable allocation of joint and common costs); SNET reply at 5-7 (including a reasonable contribution to common costs); Sprint comments at 44 (plus a reasonable contribution to joint and common costs), reply at 28-32; TCC comments at 14.

[1538] *See, e.g.*, Texas Statewide Tel. Cooperative comments at 8-11, 14.

demand for network elements.[1539] Because TSLRIC defines a cost increment relative to a hypothetical situation in which the supplier does not currently provide the network element at all and thus must construct and operate all element-specific facilities necessary to produce the network element, AT&T believes that TSLRIC, unlike LRIC, includes all element-specific fixed costs.[1540]

637. The Consumer Federation of America argues that costs must be analyzed consistently across all major services using the same cost methodology, *i.e.*, individual functionalities or specific capacities must have similar costs across services.[1541] AT&T argues that TSLRIC should exclude all costs attributable to the incumbent LECs' retailing operations, and that all other cost allocations should be competitively-neutral and assigned on an equally proportional basis relative to attributable coss.[1542] ALTS argues that the underlying data from a TSLRIC study should be accessible for purposes of replicating the study methods and comparisons to other public data.[1543] NTIA contends that the Commission should require the states to consider recovery of only those costs that the incumbent can convincingly demonstrate are incurred in service provisioning.[1544] Supporters of a forward-looking economic cost methodology argue that TSLRIC studies can be prepared quickly to establish interconnection and unbundled element prices.[1545]

[1539] AT&T comments at 47, Appendix C (Affidavit of William J. Baumol, Janusz A. Ordover, and Robert D. Willig), pp.6.

[1540] *Id.* at 48.

[1541] CFA/CU comments at 32.

[1542] AT&T comments at 61-62, 64-65.

[1543] ALTS comments at 36-37.

[1544] NTIA reply at 28.

[1545] *See, e.g.*, LDDS comments at 64-65.

638. Incumbent LECs generally oppose the adoption of a forward-looking, long- run incremental costing methodology.[1546] At least five major reasons are offered in opposition. First, opponents of a forward-looking, long-run incremental costing methodology argue that setting the price of each discrete service based on LRIC will not recover the total costs of the network because if prices are set equal to the cost of the last unit, total revenues will fall short of total costs.[1547] Second, PacTel argues that a forward-looking cost methodology also suffers from the "fallacy of perfect competition" because it does not account for the fact that, while it is true that competition drives the price of every product toward incremental cost, every multi-product firm must have some products priced far enough above incremental cost to recover its total costs and return a profit to investors.[1548] Third, incumbent LECs argue that setting prices based on the forward-looking economic cost of the element will not create incentives for new entrants to build their own facilities,[1549] and will discourage efficient entry and useful investment by both incumbent LECs and their competitors.[1550] Fourth, some opponents of a forward-looking, economic cost methodology contend that such an approach raises significant practical and administrative problems because LRIC studies are expensive to conduct, almost impossible to audit or review particularly for small entities seeking to enter the local exchange market,

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[1546] *See, e.g.*, Matanuska comments at 3-4; NYNEX comments at 46-47; PacTel comments at 66-67; TCA comments at 8.

[1547] *See, e.g.*, Bell Atlantic comments at Attachment 1 (Affidavit of Jerry A. Hausman), pp.3-4; NECA comments at 8; Rural Tel. Coalition comments at 25.

[1548] PacTel comments at 68-69; see also Rural Tel. Coalition reply at 26-27.

[1549] *See, e.g.*, Bell Atlantic comments at 38; SBC comments at 91-92.

[1550] *See, e.g.*, PacTel comments at 70; SBC comments at 90-92; *see also* U S West comments at Exhibit A (Federal Implementation of the Telecommunications Act of 1996: Competition in the Local Exchange), p.9.

highly subjective, and the necessary data are under the exclusive control of the party subject to the agreement.[1551] USTA and other commenters also argue that use of LRIC cost studies would fail to capture differences in geographic regions, thereby denying small incumbent LECs a reasonable opportunity to recover their costs.[1552] Finally, many opponents of a forward-looking, economic cost approach to pricing interconnection and access to unbundled elements argue also that such a methodology precludes any contribution to joint and common costs and does not allow the recovery of historical costs.[1553] These parties contend that network providers must be permitted to recover their total costs of service, including a return on investment and a reasonable allocation of joint, common, and historical costs.[1554]

639. Incumbent LECs generally contend that costs should be based on the individual incumbent LEC's existing network design and technology instead of the idealized least-cost, most efficient network design and technology.[1555] USTA argues

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[1551] *See, e.g.*, Bell Atlantic comments at Attachment 2 (Declaration of Robert W. Crandall), p.8; MFS comments at 54, reply at 11-12; NECA comments at 8.

[1552] *E.g.*, USTA comments at 45-50; Bay Springs reply at 8.

[1553] *See, e.g.*, BellSouth comments at 56-57; NYNEX comments at 50-52; PacTel comments at 65-66; SBC comments at 88, reply at 24-25; U S West reply at 9, 12 (stating that depreciation expenses should be properly allocated); *see also* NECA comments at 8; TCA comments at 8-9. For a discussion of recovery of joint, common, and embedded costs, *see infra* Section VII.B.2.a.

[1554] *See, e.g.*, Ameritech comments at 60, reply at 30-33 (stating that residual cost recovery must also be permitted); Bell Atlantic comments at 35- 36 (stating that the recovery of the total costs of constructing and operating the networks must also be permitted); NYNEX comments at 42-44; USTA comments at Attachment 1 (Affidavit of Jerry A. Hausman), pp.5-6.

[1555] *See, e.g.*, Ameritech reply at 32-33; Bell Atlantic reply at 17-18; Bellsouth reply at 36-37; *see also* GVNW comments at 36; USTA comments at 40, reply at 21-22.

that, if competitors want to use an incumbent LEC's embedded plant, competitors should pay for the existing plant, not some theoretical, more efficient plant.[1556] In addition, these parties argue that, if a new entrant can purchase the unbundled element from the incumbent LEC at a price no higher than the cost of the least-cost, most efficient provider, then the new entrant has little incentive to invest in its own facilities. Ameritech also contends that section 252(d)(1) addresses recovery of the incumbent LEC's costs of providing interconnection and unbundled network elements, not the costs of a hypothetical carrier.[1557]

640. On the other hand, several new entrants argue that a forward-looking economic cost methodology should be based on an efficient provider's costs of producing a service.[1558] These parties contend that, in a competitive market, prices are determined by the cost of efficient potential entrants, not the embedded costs of existing firms.[1559] In addition, a pricing standard based on the costs of the element using the most-efficient technology prevents incumbent LECs from charging competitors for the cost of facilities that would in fact be used in large part by the incumbent LECs themselves to compete in new markets such as interexchange service.[1560] Sprint,

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[1556] USTA comments at 40.

[1557] Ameritech reply at 32.

[1558] *See, e.g.*, ACSI comments at 56; AT&T comments at 57-60 (optimally configured and sized assets with current technology and efficient operating practices); AT&T comments at Appendix C (Affidavit of William J. Baumol, Janusz A. Ordover, and Robert D. Willig), p. 10 (efficient, cost-minimizing competitor); GST comments at 26-27 (costs of an efficient LEC rather than the actual costs of an incumbent LEC); Teleport reply at 30 (best available technology at today's prices); *see also* DoJ reply at 9-11 (best generally available technology); Louisiana Commission comments at 4, 15; Telecommunications Resellers Ass'n comments at 38 (most efficient available technology).

[1559] *See, e.g.*, TCC comments at 17.

[1560] DoJ reply at 10.

however, argues that prices should be based on the incumbent LEC's average utilization and existing network design and technology, not on an idealized network and technology that may bear no relationship to the incumbent LECs existing operations.[1561]

641. USTA, Bell Atlantic, and BellSouth have asserted in various filings and *ex parte* presentations that TSLRIC-based pricing would not properly compensate incumbent LECs for certain factors that affect capital costs and economic depreciation rates.[1562] First, when technological progress lowers equipment costs, the replacement or forward-looking economic cost of certain durable sunk investments can be expected to decline over time. In this case the correct measure of cost over any period of time should include the expected decline in economic value during that period.[1563]

642. Second, these parties argue that, when investments in facilities needed to meet a specific level of demand are sunk and irreversible, an incumbent LEC may not be able to recover these costs over the physical life of the facility, because demand may decrease as new entrants elect to build their own facilities. When entry is possible using current technology, either competition from these entrants, or rate regulation can prevent retail service prices from rising significantly, which will place an effective ceiling on profits. If demand for a

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[1561] Sprint reply at 31-32.

[1562] USTA reply comments at Attachment 1 (Reply Affidavit of Jerry A. Hausman); Bell Atlantic comments at Attachment 1 (Affidavit of Jerry A. Hausman); Letter from Robert T. Blau, Vice President, Executive and Federal Regulatory Affairs, BellSouth, to William F. Caton, Acting Secretary, FCC, July 25, 1996, at Attachment (Response to Hubbard and Lehr).

[1563] We note that USTA seems to present a contradictory argument regarding the expected effect of this issue -- here Hausman claims that prices will decrease rapidly, whereas in our price cap proceeding, USTA sponsored testimony by Christenson that claimed input prices would generally *increase* at the rate of inflation. USTA comments in CC Docket No. 94-1, at 25-27.

service falls in a market in which the incumbent LEC is the only supplier and owner of sunk facilities, however, there will be no corresponding exit of other carriers that will prevent prices and profits from falling. Because of this asymmetric effect of changing market conditions on an incumbent LEC's profits, these parties claim that increasing the uncertainty due to entry in the local exchange market will increase the cost of capital to the incumbent LEC. They then assert that the inability of TSLRIC to account for the risks associated with sunk facilities can lead to understating the true economic cost of an element by a factor of three.[1564] Finally they assert that empirical research that shows firms' hurdle rates in excess of the market cost of capital shows that the considerations of risk associated with sunk investment significantly raises a firm's cost of capital.[1565]

643. *Joint and Common Costs.* Several incumbent LECs contend that a forward- looking, economic cost methodology does not take into account either joint or common costs.[1566] Although a few parties contend that incumbent LECs do not need a mark-up over TSLRIC to recover joint and common costs because incumbents are presumably already recovering these costs,[1567] commenters generally agree that incumbent LECs should be permitted to recover some measure of forward-looking joint and common costs.[1568] These commenters argue

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[1564] *See* USTA reply at Attachment 1 (Reply Affidavit of Jerry A. Hausman), p.1.

[1565] *Id.* at 7.

[1566] *See, e.g.*, Bell Atlantic comments at Tab 2 (Declaration of Robert W. Crandall), p.9, reply at Attachment 1 (Declaration of Alfred E. Kahn and Timothy J. Tardiff), p.6; BellSouth comments at 51; Municipal Utilities comments at 19-21; SBC reply at 24-25; TDS comments at 18-19.

[1567] *See* Telecommunications Resellers Ass'n comments at 39-40; Texas Public Utility Counsel comments at 19-20; WinStar comments at 29, reply at 9-10.

[1568] *See, e.g.*, Ameritech comments at 60; Bell Atlantic comments at 36; Citizens Utilities comments at 19; Cincinnati Bell comments at 24-25; Colorado Commission comments 45-46; DoJ reply at 6; GTE Comments at

that pricing at incremental cost without joint and common costs is economically inefficient because it permits competitors to offer the incumbent LECs' services without making a contribution to the common costs that the LECs incur in offering the service.[1569] They further contend that excluding recovery of joint and common costs will distort technological decisions because the LEC is encouraged to invest in less efficient technologies that have higher incremental costs and lower common costs, which would tend to destroy economies of scope.[1570] Finally, incumbent LECs fear that they will be forced to increase retail rates to recover these unrecovered common costs, while their competitors that do not face such costs will reduce their own prices and have little incentive to invest in facilities of their own.[1571]

644. There is no consensus in the record on the magnitude of the joint and common costs at stake. Although commenters argued that the amount of common costs varies dramatically due to differences in location, network construction, and equipment,[1572] several parties are skeptical that there are significant joint and common costs between network elements given the relative modularity of the network and associated functions.[1573] These parties contend that, if joint and common

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61-62; Kentucky Commission comments at 5; Lincoln Tel. comments at 13; Mass. Commission comments at 11-12; NCTA comments at 49-50; Ohio Consumers' Counsel comments at 24; SBC comments at 91; Sprint comments at 43-44; AT&T reply at 28; NTIA reply at 19-21; USTA reply at 19.

[1569] *E.g.*, BellSouth comments at 52-53; GTE comments at Attachment 3 (Affidavit of Edward C. Beauvais, Ph.D.), p.3.

[1570] *See, e.g.*, BellSouth comments at 53; Lincoln Tel. comments at 13.

[1571] *E.g.*, BellSouth comments at 53-54.

[1572] *See, e.g.*, Municipal Utilities comments at 19-20; NARUC reply at 9.

[1573] *See, e.g.*, AT&T comments at Attachment or Appendix C (Affidavit of William J. Baumol, Janusz A. Ordover, and Robert D. Willig), pp.13-14; Competition Policy Institute comments at 19; DJ comments at 31-32, reply at 8; Texas Public Utility Counsel comments at 24-25.

costs are incurred, incumbent LECs must quantify them so that a state commission can determine whether and precisely how much contribution is needed.[1574] The Department of Justice asserts that, when developing a TSLRIC for unbundled network elements, it is preferable, where possible, to focus on costs of facilities and network elements rather than services that use those facilities in order to arrive at a more accurate determination of economic costs and to reduce the amount of costs that must be treated as joint or common.[1575] The incumbent LECs disagree with the new entrants' characterization of these costs as *de minimis* and argue that there is no evidence that unrecovered joint and common costs are much lower in the TSLRIC rates for physical elements than a TSLRIC standard based on the cost of providing services.[1576]

645. There is considerable disagreement in the record over the appropriate method of allocating joint and common costs under a TSLRIC approach. AT&T contends that the vast majority of the relevant costs will be causally attributed to particular network elements in the calculation of TSLRIC, and that we should prescribe rigid allocators that limit the incumbents' ability to manipulate prices by imposing high markups on new entrants.[1577] This approach, it is argued, is more competitively neutral than Ramsey pricing, which allocates costs based on inverse demand elasticity.[1578] In contrast, incumbent LECs advocate allocation of joint and common costs based on inverse

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[1574] Texas Public Utility Counsel comments at 17-28; Sprint comments at 47- 50.

[1575] DoJ reply at 8; *see also* Competition Policy Institute comments at 19.

[1576] *E.g.*, PacTel reply at 27; *see also* Cincinnati Bell reply at 10.

[1577] *See* AT&T comments at 61-62.

[1578] *See, e.g.*, Teleport comments at 47-48.

demand elasticity,[1579] *i.e.*, according to Ramsey pricing principles.[1580] New entrants and other parties oppose the use of Ramsey pricing for interconnection and unbundled network elements for use in a market that is moving toward competition over the long-run.[1581] They contend that Ramsey pricing enables LECs to shift costs associated with entry into new competitive markets over to captive services.[1582] One state commission responds that the Commission's concern in this regard would be addressed by calculating demand elasticities on the basis of the total industry demand for the service, which would negate the influence of competition on demand elasticities.[1583]

646. Commenters suggested other means of allocating joint and common costs. For example, certain incumbent LECs argue that these costs must not be shifted from interconnection and unbundled elements to residential subscribers,[1584] while certain new entrants suggest that these costs should be

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[1579] *See e.g.*, GTE comments at 63, comments at Attachment 3 (Affidavit of Edward C. Beauvais, Ph.D.), pp.4-6; *see also* Mass. Commission comments at 11- 12.

[1580] *See* Frank P. Ramsey, *A Contribution to the Theory of Taxation*, 37 Econ. J. 47 (1927); *see generally* Kenneth E. Train, *Optimal Regulation: The Economic Theory of Natural Monopoly* 115-40 (1992) (discussing efficiency properties of Ramsey prices); Bridger M. Mitchell & Ingo Vogelsang, *Telecommunications Pricing: Theory and Practice* 43-61 (1991).

[1581] *See, e.g.*, Ad Hoc Telecommunications Users Committee comments at 39-41; CompTel comments at 79-80; MECA comments at 45; Teleport comments at 47-48; Texas Public Utility Counsel comments at 27; WinStar reply at 10-11.

[1582] *See, e.g.*, Ad Hoc Telecommunications Users Committee comments at 38-39.

[1583] *See, e.g.*, Mass. Commission comments at 12.

[1584] *See, e.g.*, Puerto Rico Tel. comments at 10; Rural Tel. Coalition comments at 27.

recovered at the retail level.[1585] Many new entrants agree that the Commission should require allocation of joint and common costs that minimizes the opportunity for incumbent LECs to harm competitors through strategic pricing.[1586] For example, some new entrants argue that states should be required to minimize allocation of joint and common costs to bottleneck or essential network elements.[1587] MCI and Sprint assert that such costs should be spread across all services provided by a carrier in proportion to the TSLRIC for each service.[1588] A few commenters assert that the Commission should adopt a fixed mark-up over TSLRIC for allocation of joint and common costs.[1589] Cable & Wireless supports the adoption of a rule that allocates common costs uniformly for all services offered. It argues that a disproportionate allocation system, that for example, assigns common costs strictly to retail services purchased for resale by small companies, but not to unbundled network elements utilized by larger competitors, would prove detrimental to the development of local competition.[1590] Finally, certain parties suggested that regardless of the method ultimately used to allocate joint and common costs, TSLRIC

[1585] *E.g.*, MCI reply at 9-10.

[1586] *See, e.g.*, MCI reply at 9-10.

[1587] *See, e.g.*, LCI comments at 4-5 (even under a TSLRIC methodology, it may be necessary to allocate joint direct costs among classes of service); Time Warner comments at 52-53 (only elements that can be duplicated by competitors or that are already available from other sources should include a reasonable markup over TSLRIC for shared and common costs); *see also* CFA/CU comments at 33-35 (allocation to such elements should be no more than the allocation of such costs to basic service).

[1588] *See* AT&T comments at 64; MCI reply at 9-10; Sprint comments at 47.

[1589] *See, e.g.*, Competition Policy Institute comments at 19 (suggesting an overhead loading of six percent); *see also* Sprint comments at 48-49 (joint and common costs should be no more than 15 percent of TSLRIC).

[1590] Cable & Wireless comments at.35.

should serve as the floor[1591] and prices should not exceed stand-alone costs.[1592]

647. *Reasonable Profit.* Commenters disagree over what should constitute a "reasonable profit." Numerous commenters argue that a TSLRIC-based methodology for the pricing of interconnection and unbundled network elements includes a reasonable profit and is, therefore, consistent with the 1996 Act.[1593] These commenters argue that economic measures, such as TSLRIC, reflect a reasonable profit by including the cost of capital.[1594] Time Warner and NEXTLINK contend that permitting incumbent LECs to receive a profit above that contained within TSLRIC pricing would provide them with a greater return on facilities than was permitted under rate-of-return regulation by "double- counting" the profit.[1595] Furthermore, NEXTLINK rejects the notion that profit includes the recovery of embedded costs or is a means of recovering subsidies for universal service currently recovered through access charges such as the transport interconnection charge or carrier common line charge, or their intrastate

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[1591] *See, e.g.*, Citizens Utilities comments at 19; Florida Commission comments at 26; SBC comments at 93-94.

[1592] *See, e.g.*, AT&T comments at Appendix C (Affidavit of William J. Baumol, Janusz A. Ordover, and Robert D. Willig), pp.14-15; TDS comments at 21.

[1593] *See, e.g.*, CompTel comments at 69-70; LDDS comments at 61; MCI comments at 61-62; Texas Public Utility Counsel comments at 19-20; WinStar comments at 29; Ad Hoc Telecommunications Users' Committee reply at Appendix A (Interconnection Pricing Standards for Monopoly Rate Elements in a Potentially Competitive Local Telecommunications Market), p.12.

[1594] *E.g.*, AT&T reply at 31; CompTel comments at 69-70, reply at 39; DoJ reply at 9; Frontier reply at 12-15; MCI comments at 61-62; Texas Public Utility Counsel comments at 19-20; WinStar comments at 29.

[1595] NEXTLINK comments at 28; Time Warner reply at 31-32.

equivalents.[1596] Similarly, LDDS believes that "reasonable profit" cannot be read to include contribution to costs having nothing to do with providing the network elements or interconnection that are the subject of a section 252 pricing standard.[1597]

648. Incumbent LECs, however, contend that setting rates on a TSLRIC-based methodology alone would violate section 252(d)(1) by precluding recovery of a reasonable profit.[1598] NYNEX and USTA state that profit is what a firm makes after it recovers its total costs of providing all of its services, including its investment-related costs.[1599] Ameritech similarly contends that the term "reasonable profit" means the ability to earn positive economic profits as an incentive for efficiency and innovation.[1600] PacTel argues that, in order to allow for a reasonable profit, rates for interconnection and unbundled elements must permit full recovery of historical accounting costs. PacTel charges that the federal courts have held that the determination of a "reasonable profit" should consider the effect on the carrier's whole enterprise and, therefore, the sum of the carrier's rates must enable it to recover its total historical costs.[1601]

649. Several parties contend that the issue of what constitutes a reasonable profit should be left to the states. Citizens

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[1596] NEXTLINK comments at 28-29.

[1597] LDDS comments at 61.

[1598] *See, e.g.*, GTE comments at 60; NYNEX comments at 51-52; PacTel comments at 69; SBC comments at 88; TCA comments at 9; TDS comments at 18; *see also* GTE comments at Attachment 3 (Affidavit of Edward C. Beauvais, Ph.D.), p.9.

[1599] *See* NYNEX comments at 42; USTA comments at 43.

[1600] *See* Ameritech comments at 70-71.

[1601] *See* PacTel comments at 65-66, *citing FPC v. Hope Natural Gas*, 320 U.S. 591 (1944) and *Jersey Central Power & Light v. FERC*, 810 F.2d 1168, 1172 (D.C. Cir. 1987).

Utilities contends that the issue of whether profit is reasonable is a question of fact to be resolved, where necessary, in arbitration proceedings.[1602] Time Warner argues that what constitutes reasonable profit should, as a matter of policy, vary depending on the nature of the facilities or services being provided and should, therefore, be left to the states.[1603] The Illinois Commission argues that states may even use rate-of-return methodologies for the determination of reasonable profit.[1604]

650. There is also disagreement among the commenters regarding the force of the reasonable profit language in section 252. While many incumbent LECs interpret Section 252(d)(1) as *requiring* prices to include a reasonable profit,[1605] certain new entrants and other parties argue that the reasonable profit language is permissive, not mandatory.[1606] For example, several LECs contend that, to avoid confiscation of their property, LECs are entitled to full operating expenses as well as the capital costs of doing business and a reasonable profit.[1607] The Ohio Consumers' Counsel, however, argues that the language of section 252(d)(1) indicates that it is at the discretion of the state commissions to determine whether to allow rates to reflect a reasonable profit.[1608]

651. USTA contends that "purely forward-looking TSLRIC" should not be the price for interconnection elements because

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[1602] Citizens Utilities comments at 17.

[1603] Time Warner comments at 52.

[1604] Illinois Commission reply at 15.

[1605] *See, e.g.*, PacTel comments at 65-66.

[1606] *See, e.g.*, AT&T reply at 31; Cox reply at 29; DoJ reply at 15.

[1607] *See, e.g.*, MECA comments at 44, 49; PacTel comments at 65-67.

[1608] Ohio Consumers' Counsel comments at 26.

"telecommunications networks are mostly sunk costs."[1609] It argues that, when investment in facilities requires sunk and irreversible costs, a firm may not be able to recover this investment over the physical life of the facilities due to the risks of decreases in value resulting from future competition. USTA contends that allowing other carriers into the provision of local exchange service will subject incumbent LECs to these types of risks. It then claims that TSLRIC calculations do not appropriately account for these additional risks.

652. USTA also argues that the risks to which the incumbent LECs will be subject as a result of competition in the local exchange market include the risks from facing new competition, technological change, change in demand, and interest rates. It further argues that these risks will result in many situations in which the incumbent LECs may face a reduction in profits (downside risk) and no situations in which the incumbent LECs may see an increase in their profits. Thus, incumbent LECs must be compensated for these additional risks, according to USTA. It concludes that TSLRIC calculations fail to provide this compensation, stating "TSLRIC can be biased downward by a factor of three."[1610]

653. Similarly, Bell Atlantic asserts that, in a market where input prices are declining, a TSLRIC standard is not the appropriate standard because, "in a world of continual technological progress, it would be irrational for firms constantly to update their facilities in order completely to incorporate today's lowest-cost technology."[1611] Thus, it argues that because a carrier would not replace its entire existing set of

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[1609] *See* USTA reply at Attachment 1 (Reply Affidavit of Professor Jerry A. Hausman), p.1.

[1610] *Id.* at 6. Presumably, by TSLRIC, Professor Hausman is referring to a TSLRIC assuming a risk free rate of return and a depreciation rate that encompasses the physical life of assets.

[1611] Bell Atlantic reply at Exhibit 1 (Declaration of Alfred E. Kahn and Timothy J. Tardiff), para.8a.

facilities (a sunk investment) with the best available technology at a given point, the price of the best available technology understates the cost of providing service.[1612]

654. The Consumer Federation of America, disputing the incumbent LECs' claims regarding risk premiums, argues that risk premiums are reflected in the large returns incumbent LECs have already earned.[1613]

655. *Embedded Costs.* IXCs, competitive local entrants, and others interpret section 251(d)(1) as precluding states from setting rates by use of traditional cost-of-service regulation, with its detailed examination of historical accounting costs and reliance on an embedded rate base.[1614] These parties argue that some measure of forward-looking economic costs, not historical costs, should be the only basis for setting rates for interconnection and unbundled network elements because only forward-looking economic costs meet the statutory requirement in section 252(d)(1) that such rates be "determined without reference to a traditional rate-of-return or other rate-based proceeding." Potential new entrants and many other commenters argue that historical or embedded costs should not be included in the prices of interconnection and unbundled

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[1612] *Id.*

[1613] *See* CFA/CU comments at 61-63.

[1614] *See, e.g.*, AT&T comments at 47; LDDS comments at 60; MCI comments at 61-62; MFS comments at 59; Sprint comments at 43; Teleport comments at 46; Time Warner comments at 51; Frontier comments at 21; Excel comments at 9; ACSI comments at 54-55; WinStar comments at 37-38; GST comments at 29-30; see also Ad Hoc Telecommunications Users Committee comments at 30-31; DoJ comments at 27-32, reply at 14; Kentucky Commission comments at 4; Texas Public Utility Counsel comments at 33-34; Telecommunications Resellers Ass'n comments at 38; Michigan Commission comments at 14; Pennsylvania Commission comments at 29; Ohio Commission comments at 42-43; Attorneys General reply at 7-8.

network elements.[1615] NTIA asserts that it is unwise to include in the prices for interconnection and unbundled elements an amount to recover historical costs when the size of any shortfall between historical costs and TSLRIC's forward-looking costs will not be determined for many years after interLATA entry.[1616] These parties contend that permitting incumbent LECs to recover embedded costs in the prices they charge competitors for interconnection and unbundled network elements, while the incumbents experience much lower incremental costs, will result in inefficiently high prices that will either cause new entrants to over-build existing systems instead of maximizing the efficient use of the existing incumbent LEC's network, or discourage entry and investment in the local markets altogether.[1617] Moreover, opponents of embedded cost recovery maintain that these costs reflect past inefficiencies and their recovery does not create any incentive for incumbent LECs to maximize their network and operational efficiencies.[1618] Commenters also argue that embedded cost recovery permits incumbents to engage in anticompetitive, strategic, or discriminatory pricing by manipulating the cost of individual rate elements.[1619]

[1615] *See, e.g.*, AT&T comments at 47; CFA/CU reply at 18-19; DoJ comments at 27-32; N. Economides comments at 3; Frontier comments at 21-22, reply at 13; Jones Intercable comments at 25-26; LDDS comments at 60; MCI comments at 61-62; MFS comments at 59; Michigan Commission comments at 14; Sprint comme..ts at 43; Teleport comments at 46; TCC comments at 15-16; Texas Public Utility Counsel comments at 33-34; Time Warner comments at 51; WinStar comments at 37-38; see also Ad Hoc Telecommunications Users' Committee reply at Appendix A (Interconnection Pricing Standards for Monopoly Rate Elements in a Potentially Competitive Local Telecommunications Market), pp.2-6;

[1616] *See* NTIA reply at 28-29.

[1617] *See, e.g.*, Competition Policy Institute comments at 8; TCC comments at 15-16.

[1618] *See, e.g.*, Ad Hoc Telecommunications Users Committee comments at 53-54.

[1619] TCC comments at 15-16

656. In response to claims that the incumbent LECs are entitled to recover embedded costs incurred as a result of their regulation, opponents of embedded cost recovery argue that, at the state level, incumbent LECs have been opting for incentive-based regulation and so have foregone the right to claim entitlement to recovery of embedded costs in exchange for the flexibility to price their services to meet competition.[1620] AT&T argues that, because the majority of the incumbent LECs' embedded plant was installed after 1990, the forward-looking replacement costs of this old plant may in many cases be higher than the incumbent LECs' embedded costs.[1621] MCI disagrees with incumbent LECs' claims that excluding historical costs will discourage future investment by incumbent LECs and argues instead that incumbent LECs make investment decisions based upon expected future earnings.[1622]

657. Most incumbent LECs and some other parties dispute the claim that historical costs are precluded by the statute,[1623] asserting instead that section 252(d)(1) merely prohibits the use of a rate-of-return *proceeding* to determine such rates.[1624] Incumbent LECs argue that any pricing methodology the Commission adopts should permit recovery of historical or

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[1620] *See, e.g.*, GST comments at 29-30; WinStar comments at 38.

[1621] *See* AT&T reply at 33. For a detailed discussion, *see* AT&T reply at Appendix C (Affidavit of Lee Selwyn and Patricia Kravtin), pp.1-4.

[1622] *See* MCI reply at 15-16.

[1623] *See, e.g.*, Bell Atlantic comments at 37; BellSouth reply at 35-37; Colorado Commission comments at 34-35; GVNW comments at 35-36; Municipal Utilities comments at 19; NYNEX comments at 46-47; Ohio Consumers' Counsel comments at 23; PacTel comments at 65; Roseville Tel. comments at 6-8; Rural Tel. Coalition comments at 26-28; SBC comments at 88; TDS comments at 17-18; Texas Statewide Telephone Coop. Inc. comments at 7; USTA comments at 40.

[1624] *See, e.g.*, Bell Atlantic comments at 37; Municipal Utilities comments at 19; Ohio Consumers' Counsel comments at 23; Texas Statewide Telephone Coop. comments at 7.

embedded costs in the prices of interconnection and unbundled network elements.[1625] NYNEX specifically proposes a cost-accounting pricing methodology that places the burden on the incumbent LEC to identify the specific accounting data that would be associated with the particular type of interconnection requested by the competing carrier under section 251.[1626]

658. USTA cites reports that estimate that embedded costs that would not be recouped under a solely forward-looking pricing methodology are between $13 billion and $18.4 billion.[1627] Incumbent LECs contend that, because incumbent LECs must offset this shortfall of revenues against total costs that is created by a failure to recover embedded costs, they will be discouraged from investing to maintain and upgrade their networks in order to avoid the risk of again being unable to recover embedded costs.[1628] In addition, they argue that they incurred these embedded costs under federal and state regulatory oversight, which imposed on incumbent LECs social policy obligations and uneconomic costing practices, and that they therefore should be permitted to recover them.[1629] Incumbent LECs also assert that past investments were made under the belief that costs would be recovered, and that rates collected in the past did not reflect the risk that embedded costs

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[1625] *See, e.g.*, Alaska Tel. Ass'n comments at 4-5; Ameritech comments at 60; Bell Atlantic comments at 36; Cincinnati Bell comments at 30; Lincoln Tel. comments at 11-12; Roseville Tel. comments at 7-8; SBC comments at 59; SNET comments at 29; USTA comments at 40; see also NECA comments at 6, reply at 8-9.

[1626] NYNEX comments 54-56, reply at 27.

[1627] USTA comments at 55.

[1628] *See, e.g.*, Bell Atlantic comments at Attachment 1 (Affidavit of Professor Jerry A. Hausman), p.2; Lincoln Tel. comments at 16-17; USTA reply at 23.

[1629] *See, e.g.*, Ameritech reply at 30-31; BellSouth comments at 57; Lincoln Tel. comments at 16-17.

might not be recovered in future rates.[1630] Several commenters argue that the opportunity to recover embedded costs through rates for interconnection and unbundled elements is particularly important for small and rural incumbent LECs.[1631] Finally, some parties also contend that, if they are not permitted to recover embedded costs, these costs must be recouped elsewhere, thus putting pressure on the states to recover these costs through local rates.[1632]

659. Despite their objections to embedded cost recovery, some non-incumbent parties explain conditions under which some limited recovery should be permitted. For example, MCI argues that, although embedded costs should not be recovered, it would be appropriate to allow incumbent LECs to recover any depreciation reserve deficiency,[1633] which MCI estimates is only a small percentage of the residual between existing revenues and the revenues generated by a forward-looking, TSLRIC pricing of unbundled network elements.[1634] The Ad Hoc Telecommunications Users Committee asserts that, at a minimum, any nominal losses in economic value attributed to

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[1630] *See* Bell Atlantic reply at Exhibit 2 (Declaration of Richard A. Epstein), p.4.

[1631] *E.g.*, Home Tel. comments at 4; NECA comments at 9; TCA comments at 8; Texas Statewide Tel. Cooperative, Inc. comments at 9; Bay Springs reply at 10.

[1632] *See, e.g.*, USTA comments at 56; Wyoming Commission comments at 31-32; *see also* New York Commission reply at 9; *cf.*, Alabama Commission comments at 24-25; Texas Commission comments at 23, 26.

[1633] A reserve imbalance exists when the carrier's actual "book" depreciation reserve differs from its "theoretical" reserve, which is the reserve which would exist if service lives and salvage values had been accurately forecast in the past. When the theoretical reserve exceeds the book reserve, the imbalance is a reserve deficiency. For most LECs the reserve imbalance is an overall deficiency. *Amortization of Depreciation Reserve Imbalances of Local Exchange Carriers*, CC Docket No. 87-447, Report and Order, 3 FCC Rcd 984 (1988).

[1634] *See* MCI comments at 73-75.

stranded investment should be weighed against the appreciation in value that incumbent LECs have experienced as reflected in share prices and market-to-book ratios.[1635] The Consumer Federation of America proposes that stranded investment might be recovered through an industry-wide recovery fund, if incumbent LECs can satisfy a rigorous set of showings to ensure that ratepayers are fairly treated.[1636] Finally, AT&T argues that, if the Commission determines that some portion of the residual should be recovered, it should be recovered through a competitively neutral, transitional, funding and distribution mechanism that will not distort competition.[1637]

660. *Opportunity Cost -- ECPR.* Incumbent LECs are the primary advocates for ECPR pricing of interconnection and unbundled network elements.[1638] They argue generally that ECPR is the approach that most closely parallels the method a firm in a competitive market would employ when faced with the opportunity of selling inputs to firms that intend to compete with it in its final product market.[1639] GTE asserts that the ECPR's purpose is to reward efficient entry into the market for the end product by ensuring that the incumbent LEC sells network access to itself and to its rivals on the same, nondiscriminatory terms.[1640] Thus, GTE claims, the ECPR sets prices for network elements that provide incentives for efficient entry and compensates incumbent LECs for the economic costs

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[1635] Ad Hoc Telecommunications Users Committee comments at 26-27.

[1636] *See* CFA/CU comments at 67-68.

[1637] *See* AT&T comments at 70-73.

[1638] *See, e.g.*, Ameritech comments at 91-93; GTE reply at 36-38; MECA comments at 50-52; PacTel comments at 69-71; SBC comments at Appendix A (Efficient Component Pricing Rule), pp.1-5; *see also* PacTel reply at Appendix C (Declaration of Richard D. Emerson).

[1639] *See, e.g.*, Rural Tel. Coalition reply at 28-30.

[1640] GTE comments at Attachment 4 (An Empirical Analysis of Pricing Under Sections 251 and 252 of the Telecommunications Act of 1996), p.7.

associated with sale of such elements.[1641] GTE further argues that ECPR accomplishes these tasks regardless of the market structure and regardless of the presence or absence of economic rents.[1642] SBC argues that the ECPR is equivalent to the avoided cost rule used for setting the prices of resold services and equivalent to the efficient imputation rule for pricing of retail services.[1643] Supporters of ECPR pricing also argue that prices will continue to move toward competitive levels where competition is provided by a more efficient carrier than the incumbent LEC.[1644]

661. New entrants and many other commenters oppose the use of the ECPR to set prices for interconnection and access to unbundled network elements.[1645] These parties argue that ECPR does not comply with the statutory mandate that interconnection and network elements be based on costs. They assert that using ECPR would allow incumbent LECs to retain monopoly rents and protect the incumbent LECs from competitive disciplinary market forces.[1646] Opponents of ECPR

[1641] *Id.* at p.I-i

[1642] *Id.* at p.III-7.

[1643] SBC comments at Appendix A (Efficient Component Pricing Rule), pp.1-5.

[1644] *See, e.g.*, Ameritech comments at 93; GTE comments at Attachment 4 (An Empirical Analysis of Pricing Under Sections 251 and 252 of the Telecommunications Act of 1996), p.III-6-8.

[1645] *See, e.g.*, Ad Hoc Telecommunications Users Committee comments at 55; ALTS reply at 26-29; Cable & Wireless comments 35; California Commission reply at 20; CFA/CU comments at 41-45; CompTel reply at 40-49; Cox reply at 29; DoJ reply at 11-13; Frontier comments at 23; Mass. Attorney General comments at 6- 9; MCI comments at 70-71, reply at 16; MFS comments at 60 n.67; Ohio Consumers' Counsel comments at 25 n.7, reply at 15; Sprint comments at 59 n.33; Texas Public Utility Counsel comments at 36; Time Warner comments at 56-58; Telecommunications Resellers Ass'n comments at 41-42; WinStar comments at 41.

[1646] *See, e.g.*, Cable & Wireless comments 35; California Commission reply at 20; CompTel reply at 40; Mass. Attorney General comments at 6-8; Time Warner comments 56-58; Telecommunications Resellers Ass'n comments

contend that ECPR pricing does not replicate a competitive environment, but instead perpetuates inefficient and anticompetitive aspects of the current pricing structure. Other commenters argue that the incumbent LECs may use ECPR to exclude or marginalize a more efficient rival in the complementary market by forcing the rival to operate on the higher end of its cost curve through higher interconnection charges. They also argue that prices based on ECPR create incentives for incumbent LECs to shift costs of their competitive services to their bottleneck services, which distorts competition.[1647] Finally, opponents of ECPR assert that ECPR pricing shields the largest share of costs possible from competition, preserves the status quo, and imposes a barrier to entry.[1648]

662. Baumol, Ordover, and Willig, principal authors of the theory, explain that ECPR is not applicable for pricing of interconnection and unbundled network elements because the existing end user rates for local telecommunications are not appropriate as a baseline for ECPR. They claim that cross-subsidies are common in the current rates, and rates depart systematically from pertinent costs. Baumol, Ordover, and Willig conclude that applying ECPR to existing rates would result in component prices that lock in the incumbent LECs' monopoly profits and pricing inefficiencies, and would attract inefficient entry, where rates are too high, and would preclude efficient entry where rates are too low.[1649]

663. *Universal Service Subsidies.* Most parties other than incumbent LECs and some state commissions agree that it would be inconsistent with both the cost- based rate

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at 41-42.

[1647] *See, e.g.*, N. Economides comments at 4-6.

[1648] *See, e.g.*, CFA/CU comments at 42.

[1649] *See* AT&T comments at Appendix C (Affidavit of William J. Baumol, Janusz A. Ordover, and Robert D. Willig), pp.8-9.

requirements of section 252(d)(1) and the requirement in section 254(b)(5), that universal service support mechanisms "be specific [and] predictable..."[1650] for states to include any universal service subsidies in the rates they set for interconnection, collocation, and unbundled network elements.[1651] They argue that the 1996 Act requires that rates reflect the economic cost of providing network elements and interconnection and does not authorize subsidies that have nothing to do with economic costs.[1652] With regard to the requirements of section 254, these parties argue that, to the extent rates need to be subsidized for universal service purposes, the subsidy should be collected from all carriers on a non-discriminatory and competitively neutral basis.[1653] The Washington Commission relates its own experience of rejecting US West's request for a per minute universal service charge to cover "carrier of last resort" obligations and its finding that residential rates were sufficient to cover the costs of residential service.[1654]

[1650] 47 U.S.C. § 254(b)(5).

[1651] *See, e.g.*, ACTA comments at 23; AT&T comments at 70-73; Competition Policy Institute comments at 20; CompTel comments at 73-74; DoJ comments at 56- 59; MCI comments at 75; NEXTLINK comments at 29; Sprint comments at 61-62; Telecommunications Resellers Ass'n comments at 39 n.76; Teleport comments at 48-49; WinStar comments at 40-41, reply at 13-14.

[1652] AT&T and CompTel further contend that to permit any universal service subsidies in the rates set for interconnection, collocation and unbundled network elements would be to base rates on the embedded costs of incumbent LEC expenditures rather than the forward-looking economic costs of providing a network element as mandated by section 252(d)(1). *See* AT&T comments at 70- 73; CompTel comments at 72-74.

[1653] *See, e.g.*, ACTA comments at 23; AT&T comments at 69; Massachusetts Commission comments at 8-10; MCI comments at 75; Michigan Commission comments at 19.

[1654] Washington Commission reply at 6.

664. In contrast, several incumbent LECs and state public utility commissions maintain that incumbent LECs should be permitted to recover their embedded costs in the rates set for interconnection, collocation, and unbundled network elements. These commenters claim that rates based on incremental costs alone fail to account for certain costs historically incurred to accomplish carrier- of-last-resort and universal service social policy objectives.[1655] The Attorneys General caution the Commission not to classify legitimate contributions to joint and common costs as impermissible implicit universal service subsidies.[1656]

665. Several parties comment on the issue of how universal service funding should be handled during the interim period between the effective date of this order and the effective date of the Commission's order implementing the section 254 universal service requirements in May 1997. AT&T proposes that the Commission adopt a competitively-neutral funding and distribution mechanism.[1657] CompTel proposes that the Commission grant a blanket waiver of incremental cost pricing for exchange access. Under CompTel's plan, pending completion of the section 254 proceeding, the incumbent LECs would continue to provide exchange access pursuant to their intrastate and interstate carrier-to- carrier access charge tariffs. At the conclusion of the section 254 proceeding, the Commission would determine whether the incumbent LECs are entitled to recover any portion of those revenues from competitive carriers and, if so, devise appropriate mechanisms for doing so. CompTel asserts that, by preserving the status

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[1655] *See, e.g.*, Alabama Commission comments at 24-25; Bay Springs, *et al.* comments at 16; BellSouth comments at 57; Matanuska Tel. comments at 2-3; TDS comments at 20; SBC comments at 89; Western Alliance comments at 6-7; but see BellSouth comments at 57 (if the universal service proceeding establishes a federal fund or if the states establish explicit funds, there will be no need for subsidies to be built into interconnection and unbundled network element rates).

[1656] Attorneys General reply at 10-11.

[1657] AT&T comments at 73.

quo for exchange access until those issues are fully considered and resolved, the Commission would ensure that the 1996 Act does not cause any unnecessary short-term disruption to carriers or consumers.[1658]

666. The Western Alliance contends that states should have authority to order the recovery of lost contribution through access charges until explicit and competitively neutral support mechanisms are in place.[1659] Similarly, the Massachusetts Commission argues that the states should have authority to include universal service subsidies in the rates for interconnection during this period. The Massachusetts Commission further contends that prohibiting states from exercising this authority will promote inefficient competition and ultimately could result in confiscation claims being filed by incumbent LECs.[1660]

667. Some parties take the position that "play or pay" proposals incorporate implicit subsidies into rates for interconnection and unbundled network elements and are therefore inconsistent with the 1996 Act.[1661] They further argue that such programs violate the 1996 Act because they do not require all telecommunications carriers to contribute on an equitable and nondiscriminatory basis and do not qualify as "specific, predictable and sufficient mechanisms" to preserve and advance universal service.[1662]

668. Other commenters argue, however, that the 1996 Act permits reasonable differences in interconnection rates charged

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[1658] CompTel comments at 84.

[1659] Western Alliance comments at 6-7.

[1660] Mass. Commission comments at 9-10.

[1661] *See, e.g.*, Frontier comments at 23; Teleport comments at 48-49; Texas Public Utility Counsel comments at 35-36; WinStar reply at 14 n.20.

[1662] WinStar comments at 40; see also Texas Public Utility Counsel comments at 35.

to carriers so long as similarly- situated carriers are treated alike. They maintain that the anti- discrimination provisions of the 1996 Act only prohibit unreasonable discrimination. Thus, they contend that "play or pay" schemes are consistent with the 1996 Act.[1663] Several parties also contend that such schemes are authorized by the reservation of state power to adopt and implement universal service measures in section 254.[1664] Moreover, the New York Commission argues that the section 254(e) requirement that universal service funding must be explicit applies only to the federal Universal Service Fund, which is yet to be established, and not to state initiatives.[1665]

669. Some commenters urge the Commission to address universal service in the section 254 proceeding rather than in the section 251/252 interconnection proceeding.[1666] Other commenters suggest that universal service, access restructure, and interconnection issues should be addressed in a coordinated manner or in a consolidated proceeding.[1667]

670. *Fifth Amendment Issues*. Several incumbent LECs claim that use of a LRIC-based pricing methodology that does not permit recovery of at least joint and common costs and a reasonable profit constitutes unlawful confiscation in violation of the Fifth and Fourteenth Amendments.[1668] Other LECs further argue that, in order to avoid an unconstitutional taking,

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[1663] *See, e.g.*, New York Commission comments at 15-18; NYNEX comments at 91- 97.

[1664] NYNEX comments at 95-97; New York Commission reply at 6.

[1665] New York Commission reply at 6.

[1666] *See, e.g.*, Competition Policy Institute comments at 13-14; F. Williamson comments at 8; Texas Public Utility Counsel comments at 36; ALTS reply at 35.

[1667] *See, e.g.*, Ad Hoc Telecommunications Users Committee comments at 35; TDS comments at 20.

[1668] *See, e.g.*, GTE comments at 65-71; MECA comments at 42; Puerto Rico Telephone Company reply at 11-12; PacTel comments at 67.

any pricing rules we adopt must enable them to recover total costs, including historical or embedded costs.[1669] Generally, these parties contend that prices limited by a forward-looking economic cost methodology do not permit an incumbent LEC to remain profitable over time because LRIC fails to recover total costs.[1670] They assert that, if the Commission decides now, long after those costs have been sunk, to bar compensatory returns, it will violate due process and undermine the incumbent LECs' legitimate, investment-backed expectations.[1671] Such interference with legitimate investor expectations, they contend, constitutes an unlawful taking.[1672] GTE contends that Commission adoption of a pure TSLRIC methodology would represent an unconstitutional taking, because it would require use of the incumbent LEC's physical property, thus giving rise to an obligation to provide just compensation.[1673]

671. Other parties, including the Department of Justice and new entrants, contend that using a forward-looking cost-based pricing methodology for setting the rates for interconnection and unbundled elements does not constitute an unlawful taking.[1674] These commenters point out that many state commissions already utilize a forward-looking cost-based

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[1669] *See, e.g.*, NYNEX comments at 43-44; PacTel comments at 65-66; SNET comments at 29; Roseville Tel. comments at 6-7.

[1670] *See, e.g.*, Ameritech comments at 62-70; GTE comments at 68-71, reply at 31-32; USTA comments at 39-42.

[1671] *See, e.g.*, GTE comments at 66-71, reply at 31-33; USTA comments at 40- 45, reply at 21-25, 32-34.

[1672] *Id.*

[1673] *See* GTE comments at 65-67.

[1674] *See, e.g.*, ALTS reply at 8-11; AT&T comments at 70-71; CompTel reply at 37-40; DoJ reply at 13, 16-19; MCI reply at 18-20.

pricing methodology.[1675] They also argue that, because forward-looking cost-based rates capture all costs for interconnection and unbundled network elements, including the risk-adjusted cost of capital, such a methodology would not result in an unlawful taking.[1676] These parties further assert that the LECs' takings claims are premature, not demonstrated with sufficient specificity, and overstate the scope of the constitutional guarantee.[1677] Commenters note that no incumbent LEC has made any effort to demonstrate the actual impact of a LRIC-based pricing methodology on its "financial integrity."[1678] These parties contend that there is no unconstitutional impairment if the shortfall is not sufficient to jeopardize the operating and financial integrity of the utility. Finally, these commenters maintain that there is no constitutional right to a particular rate-setting methodology (*i.e.*, historical cost) and there are no general principles that require every component of an integral whole of a utility service to show a profit.[1679]

(3) Discussion

672. *Overview.* Having concluded in Section II.D., above, that we have the requisite legal authority and that we should establish national pricing rules, we conclude here that prices for interconnection and unbundled elements pursuant to sections 251(c)(2), 251(c)(3), and 252(d)(1), should be set at forward-looking long-run economic cost. In practice, this will mean that prices are based on the TSLRIC of the network element,

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[1675] *See, e.g.*, AT&T comments at 49-50; Cable & Wireless reply at 24-25; MCI reply at 19. AT&T also notes that when U S West and BellSouth have been new entrants into markets, they have advocated a LRIC approach. AT&T comments at 50-51 n.72.

[1676] *See, e.g.*, Frontier reply at 14; MCI reply at 18-19.

[1677] *See, e.g.*, DoJ reply at 16-18.

[1678] DoJ reply at 16-18; MCI reply at 18.

[1679] *See, e.g.*, Jones Intercable reply at 16-17.

which we will call Total Element Long Run Incremental Cost (TELRIC), and will include a reasonable allocation of forward-looking joint and common costs. The 1996 Act encourages competition by removing barriers to entry and providing an opportunity for potential new entrants to purchase unbundled incumbent LEC network elements to compete efficiently to provide local exchange services. We believe that the prices that potential entrants pay for these elements should reflect forward- looking economic costs in order to encourage efficient levels of investment and entry.

673. In this section, we describe this forward-looking, cost-based pricing standard in detail. First, we define the terms we are using, explain how the methodology we are adopting differs from other costing approaches, and describe how it should be implemented. In particular, we explain that the price of a network element should include the forward-looking costs that can be attributed directly to the provision of services using that element, which includes a reasonable return on investment (*i.e.*, "profit"), plus a reasonable share of the forward-looking joint and common costs. Second, we address potential cost measures that must not be included in a TELRIC analysis, such as embedded (or historical) costs, opportunity costs, or universal service subsidies. Finally, we refute arguments that this methodology would violate the incumbent LECs' rights under the Fifth Amendment.

(a) Total Element Long Run Incremental Cost

674. *Definitions of Terms.* In light of the various possible definitions of a number of the critical economic terms used in this context, we begin by defining terms as we use them in this Order. Specifically, we provide definitions for the following terms: "incremental cost;" "economic cost;" "embedded or accounting cost;" "joint cost;" "common cost;" "long run incremental cost;" "total service long run incremental cost;" "total element long run incremental cost." In addition to defining these terms, we explain the economic rationale behind the concepts.

675. Incremental costs are the additional costs (usually expressed as a cost per unit) that a firm will incur as a result of expanding the output of a good or service by producing an additional quantity of the good or service.[1680] Incremental costs are forward-looking in the sense that these costs are incurred as the output level changes by a given increment.[1681] The costs that are considered incremental will vary greatly depending on the size of the increment. For example, the incremental cost of carrying an additional call from a residence that is already connected to the network to its end office is virtually zero. The incremental cost of connecting a new residence to its end office, however, is the cost of the loop. Forward-looking incremental costs, plus a portion of the forward-looking joint and common costs, are sometimes referred to as "economic costs." Embedded or accounting costs are costs that firms incurred in the past for providing a good or service and are recorded as past operating expenses and depreciation. Due to changes in input prices and technologies, incremental costs may differ from embedded costs of that same increment. In competitive markets, the price of a good or service will tend towards its long-run incremental cost.

676. Certain types of costs arise from the production of multiple products or services. We use the term "joint costs" to refer to costs incurred when two or more outputs are produced in fixed proportion by the same production process (*i.e.*, when one product is produced, a second product is generated by the same production process at no additional cost). The term "common costs" refers to costs that are incurred in connection with the production of multiple products or services, and remains unchanged as the relative proportion of those products or services varies (*e.g.*, the salaries of corporate managers). Such costs may be common to all services provided by the firm

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[1680] *See 1* Alfred Kahn *The Economics of Regulation* 66 (1971); William Baumol and Gregory Sidak, *Toward Competition in Local Telephony 57* (1994).

[1681] William Baumol and Gregory Sidak, *Toward Competition in Local Telephony 57* (1994).

or common to only a subset of those services or elements. If a cost is common with respect to a subset of services or elements, for example, a firm avoids that cost only by not providing each and every service or element in the subset. For the purpose of our discussion, we refer to joint and common costs as simply common costs unless the distinction is relevant in a particular context.

677. The term "long run," in the context of "long run incremental cost," refers to a period long enough so that all of a firm's costs become variable or avoidable.[1682] The term "total service," in the context of TSLRIC, indicates that the relevant increment is the entire quantity of the service that a firm produces, rather than just a marginal increment over and above a given level of production. Depending on what services are the subject of a study, TSLRIC may be for a single service or a class of similar services. TSLRIC includes the incremental costs of dedicated facilities and operations that are used by only the service in question. TSLRIC also includes the incremental costs of shared facilities and operations that are used by that service as well as other services.

678. While we are adopting a version of the methodology commonly referred to as TSLRIC as the basis for pricing interconnection and unbundled elements, we are coining the term "total element long run incremental cost" (TELRIC) to describe our version of this methodology. The incumbent LEC offerings to be priced using this methodology generally will be "network elements," rather than "telecommunications services," as defined by the 1996 Act.[1683] More fundamentally, we believe that TELRIC-based pricing of discrete network elements or facilities, such as local loops and switching, is

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[1682] *See, e.g.*, William Baumol, *Economic Theory and Operations Analysis* 290 (4th ed. 1977) ("The very long run is a period so long that all of the firm's present contracts will have run out, its present plant and equipment will have been worn out or rendered obsolete and will therefore need replacement, etc.").

[1683] 47 U.S.C. §§ 3(29), 3(46).

likely to be much more economically rational than TSLRIC-based pricing of conventional services, such as interstate access service and local residential or business exchange service. As discussed in greater detail below, separate telecommunications services are typically provided over shared network facilities, the costs of which may be joint or common with respect to some services. The costs of local loops and their associated line cards in local switches, for example, are common with respect to interstate access service and local exchange service, because once these facilities are installed to provide one service they are able to provide the other at no additional cost. By contrast, the network elements, as we have defined them,[1684] largely correspond to distinct network facilities. Therefore, the amount of joint and common costs that must be allocated among separate offerings is likely to be much smaller using a TELRIC methodology rather than a TSLRIC approach that measures the costs of conventional services. Because it is difficult for regulators to determine an economically-optimal allocation of any such joint and common costs, we believe that pricing elements, defined as facilities with associated features and functions, is more reliable from the standpoint of economic efficiency than pricing services that use shared network facilities.

679. *Description of TELRIC-Based Pricing Methodology.* Adopting a pricing methodology based on forward-looking, economic costs best replicates, to the extent possible, the conditions of a competitive market. In addition, a forward-looking cost methodology reduces the ability of an incumbent LEC to engage in anti-competitive behavior. Congress recognized in the 1996 Act that access to the incumbent LECs' bottleneck facilities is critical to making meaningful competition possible. As a result of the availability to competitors of the incumbent LEC's unbundled elements at their economic cost, consumers will be able to reap the benefits of the incumbent LECs' economies of scale and scope, as well as the benefits of competition. Because a pricing methodology

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[1684] *See supra* Section V.

based on forward-looking costs simulates the conditions in a competitive marketplace, it allows the requesting carrier to produce efficiently and to compete effectively, which should drive retail prices to their competitive levels. We believe that our adoption of a forward-looking cost-based pricing methodology should facilitate competition on a reasonable and efficient basis by all firms in the industry by establishing prices for interconnection and unbundled elements based on costs similar to those incurred by the incumbents, which may be expected to reduce the regulatory burdens and economic impact of our decision for many parties, including both small entities seeking to enter the local exchange markets and small incumbent LECs.[1685]

680. We note that incumbent LECs have greater access to the cost information necessary to calculate the incremental cost of the unbundled elements of the network. Given this asymmetric access to cost data, we find that incumbent LECs must prove to the state commission the nature and magnitude of any forward-looking cost that it seeks to recover in the prices of interconnection and unbundled network elements.

681. Some parties express concern that the information required to compute prices based on forward-looking costs is inherently so hypothetical as to be of little or no practical value.[1686] Based on the record before us, we disagree. A number of states, which ultimately will have to review forward-looking cost studies in carrying out their duties under section 252, either have already implemented forward-looking, incremental costing methodologies to set prices for interconnection and unbundled network elements or support the use of such an approach.[1687] While these states have applied

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[1685] *See* Regulatory Flexibility Act, 5 U.S.C. §§ 601 *et seq.*

[1686] *See, e.g.*, GVNW comments at 35; NYNEX comments at 54; USTA comments at 47-50.

[1687] *See, e.g.*, Louisiana Commission comments at 4; Texas Commission comments at 22; Washington Commission comments at 25; California Commission comments at 28-29; Colorado Commission comments at 35;

somewhat different definitions of, and approaches to setting prices developed on, an incremental cost methodology, the record demonstrates that such approaches are practical and implementable.

682. We conclude that, under a TELRIC methodology, incumbent LECs' prices for interconnection and unbundled network elements shall recover the forward- looking costs directly attributable to the specified element, as well as a reasonable allocation of forward-looking common costs. Per-unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage); that is, the per-unit costs associated with a particular element must be derived by dividing the total cost associated with the element by a reasonable projection of the actual total usage of the element. Directly attributable forward- looking costs include the incremental costs of facilities and operations that are dedicated to the element. Such costs typically include the investment costs and expenses related to primary plant used to provide that element. Directly attributable forward-looking costs also include the incremental costs of shared facilities and operations. Those costs shall be attributed to specific elements to the greatest extent possible.[1688] For example, the costs of conduits shared by both transport and local loops, and the costs of central office facilities shared by both local switching and tandem switching, shall be attributed to specific elements in reasonable proportions. More broadly, certain shared costs that have conventionally been treated as common costs (or

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Maryland Commission comments at 7-8; Oklahoma Commission comments at Attachment A (Oklahoma Corporation Commission Telephone Rules, OAC 165:55) pp. 10-11. The Wyoming and Florida commissions have indicated their support for such an approach. *See* Wyoming Commission comments at 27 (supporting uniform use of TSLRIC costing methods so long as details left to states); *see also* Florida Commission comments at 26 (TSLRIC may be appropriate to set cost standard for a price floor).

[1688] *Compare Telephone Company-Cable Television Cross-Ownership Rules*, CC Docket No. 87-266, Memorandum Opinion and Order on Reconsideration and Third Further Notice of Proposed Rulemaking, 10 FCC Rcd 244, 345-46 (1994).

overheads) shall be attributed directly to the individual elements to the greatest extent possible. The forward-looking costs directly attributable to local loops, for example, shall include not only the cost of the installed copper wire and telephone poles but also the cost of payroll and other back office operations relating to the line technicians, in addition to other attributable costs.

683. Forward-looking cost methodologies, like TELRIC, are intended to consider the costs that a carrier would incur in the future. Thus, a question arises whether costs should be computed based on the least-cost, most efficient network configuration and technology currently available, or whether forward- looking cost should be computed based on incumbent LECs' existing network infrastructures, taking into account changes in depreciation and inflation. The record indicates three general approaches to this issue. Under the first approach, the forward-looking economic cost for interconnection and unbundled elements would be based on the most efficient network architecture, sizing, technology, and operating decisions that are operationally feasible and currently available to the industry. Prices based on the least-cost, most efficient network design and technology replicate conditions in a highly competitive marketplace by not basing prices on existing network design and investments unless they represent the least-cost systems available for purchase. This approach, however, may discourage facilities-based competition by new entrants because new entrants can use the incumbent LEC's existing network based on the cost of a hypothetical least-cost, most efficient network.

684. Under the second approach, the cost of interconnection and unbundled network elements would be based on existing network design and technology that are currently in operation.[1689] Because this approach is not based on a hypothetical network in the short run, incumbent LECs could

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[1689] *See, e.g.*, BellSouth reply at 37; Roseville Tel. reply at 8; USTA reply at 18-19.

recover costs based on their existing operations, and prices for interconnection and unbundled elements that reflect inefficient or obsolete network design and technology. This is essentially an embedded cost methodology.

685. Under the third approach, prices for interconnection and access to unbundled elements would be developed from a forward-looking economic cost methodology based on the most efficient technology deployed in the incumbent LEC's current wire center locations. This approach mitigates incumbent LECs' concerns that a forward-looking pricing methodology ignores existing network design, while basing prices on efficient, new technology that is compatible with the existing infrastructure. This benchmark of forward-looking cost and existing network design most closely represents the incremental costs that incumbents actually expect to incur in making network elements available to new entrants. Moreover, this approach encourages facilities-based competition to the extent that new entrants, by designing more efficient network configurations, are able to provide the service at a lower cost than the incumbent LEC. We, therefore, conclude that the forward-looking pricing methodology for interconnection and unbundled network elements should be based on costs that assume that wire centers will be placed at the incumbent LEC's current wire center locations, but that the reconstructed local network will employ the most efficient technology for reasonably foreseeable capacity requirements.

686. We agree with USTA, Bell Atlantic, and BellSouth that, as a theoretical matter, the combination of significant sunk investment, declining technology costs, and competitive entry may increase the depreciation costs and cost of capital of incumbent LECs. We do not agree, however, that TSLRIC does not or cannot account for risks that an incumbent LEC incurs because it has sunk investments in facilities. On the contrary, properly designed depreciation schedules should account for expected declines in the value of capital goods.

Both AT&T and MCI appear to agree with this proposition.[1690] For example, AT&T states, "[i]n order to estimate TSLRIC, one must perform a discounted cash flow analysis of the future costs associated with the decision to invest .... One-time costs associated with the acquisition of capital goods are amortized over the economic life of the assets using the user cost of capital . . ., which requires accounting for both expected capital good price changes and economic depreciation."[1691] Moreover, we are confident that parties to an arbitration with TELRIC studies can propose specific depreciation rate adjustments that reflect expected asset values over time.

687. As noted, we also agree that, as a matter of theory, an increase in risk due to entry into the market for local exchange service can increase a LEC's cost of capital. We believe that this increased risk can be partially mitigated, however, by offering term discounts, since long-term contracts can minimize the risk of stranded investment. In addition, growth in overall market demand can increase the potential of the incumbent LEC to use some of its displaced facilities for other purposes. Overall, we think that these factors can and should be captured in any LRIC model and therefore we do not agree that this requires a departure from the general principle of forward-looking cost-based pricing for network elements.

688. We are not persuaded by USTA's argument that forward looking methodologies fail to adjust the cost of capital to reflect the risks associated with irreversible investments and that they are "biased downward by a factor of three." First,

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[1690] *See* Letter from Leonard S. Sawicki, Director, FCC Affairs, MCI Telecommunications Corp. to William F. Caton, Acting Secretary, FCC, July 24, 1996 at Attachment (Depreciation and Capital Recovery Issues: A Response to Professor Hausman), pp.1-3; *see also* Letter from Richard N. Clarke, AT&T, to William F. Caton, Acting Secretary, FCC, July 19, 1996 at Attachment (Capital Recovery Issues in TSLRIC Pricing: Response to Professor Jerry A. Hausman).

[1691] Letter from Richard N. Clarke, AT&T, to William F. Caton, Acting Secretary, FCC, July 19, 1996 at Attachment (Capital Recovery Issues in TSLRIC Pricing: Response to Professor Jerry A. Hausman), p.8.

USTA's argument unrealistically assumes that competitive entry would be instantaneous. The more reasonable assumption of entry occurring over time will reduce the costs associated with sunk investment. Second, we find it unlikely that investment in communications equipment is entirely irreversible or that such equipment would become valueless once facilities-based competition begins. In a growing market, there most likely would be demand for at least some embedded telecommunications equipment, which would therefore retain its value. Third, contractual arrangements between the new entrant and the incumbent that specifically address USTA's concerns and protect incumbent's investments during transition can be established.

689. Finally we are not persuaded that the use by firms of hurdle rates that exceed the market cost of capital is convincing evidence that sunk investments significantly increase a firm's cost of capital. An alternative explanation for this phenomenon is that the process that firms use to choose among investment projects results in overestimates of their returns. Firms therefore use hurdle rates in excess of the market cost of capital to account for these overestimates.[1692]

690. *Summary of TELRIC Methodology*. The following summarizes our conclusions regarding setting prices of interconnection and access to unbundled network elements based on the TELRIC methodology for such elements. The increment that forms the basis for a TELRIC study shall be the entire quantity of the network element provided. As we have previously stated, all costs associated with the providing the element shall be included in the incremental cost. Only

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[1692] *See* Richard Thaler, *The Winner's Curse*, 2 J. Econ. Perspectives 201 (1988); Keith Brown, *Note on the Apparent Bias of Net Revenue Estimates for Capital Investment Projects*, 29 J. Fin. 1215-16 (1974); Daniel Kahneman and Daniel Lovallo, *Timid Choices, Bold Forecasts*, 39 Management Science 17, 28 (1993). In addition, we note that Hausman's arguments that TSLRIC method underestimate the true cost of an element apply only to the capital expense associated with an element and not to the operating expense.

forward- looking, incremental costs shall be included in a TELRIC study. Costs must be based on the incumbent LEC's existing wire center locations and most efficient technology available.

691. Any function necessary to produce a network element must have an associated cost. The study must explain with specificity why and how specific functions are necessary to provide network elements and how the associated costs were developed. Only those costs that are incurred in the provision of the network elements in the long run shall be directly attributable to those elements. Costs must be attributed on a cost-causative basis. Costs are causally-related to the network element being provided if the costs are incurred as a direct result of providing the network elements, or can be avoided, in the long run, when the company ceases to provide them. Thus, for example, the forward-looking costs of capital (debt and equity) needed to support investments required to produce a given element shall be included in the forward-looking direct cost of that element. Directly attributable costs shall include costs such as certain administrative expenses, which have traditionally been viewed as common costs, if these costs vary with the provision of network elements. Retailing costs, such as marketing or consumer billing costs associated with retail services, are not attributable to the production of network elements that are offered to interconnecting carriers and must not be included in the forward-looking direct cost of an element.

692. In a TELRIC methodology, the "long run" used shall be a period long enough that all costs are treated as variable and avoidable.[1693] This "long run" approach ensures that rates recover not only the operating costs that vary in the short run, but also fixed investment costs that, while not variable in the short term, are necessary inputs directly attributable to providing the element.

[1693] *See 1* Alfred E. Kahn *The Economics of Regulation: Principles and Institutions* 70-71 (1988).

693. States may review a TELRIC economic cost study in the context of a particular arbitration proceeding, or they may conduct such studies in a rulemaking and apply the results in various arbitrations involving incumbent LECs. In the latter case, states must replace any interim rates[1694] set in arbitration proceedings with the permanent rate resulting from the separate rulemaking. This permanent rate will take effect at or about the time of the conclusion of the separate rulemaking and will apply from that time forward.

694. *Forward-Looking Common Costs.* Certain common costs are incurred in the provision of network elements. As discussed above, some of these costs are common to only a subset of the elements or services provided by incumbent LECs. Such costs shall be allocated to that subset, and should then be allocated among the individual elements or services in that subset, to the greatest possible extent. For example, shared maintenance facilities and vehicles should be allocated only to the elements that benefit from those facilities and vehicles. Common costs also include costs incurred by the firm's operations as a whole, that are common to all services and elements (e.g, salaries of executives involved in overseeing all activities of the business), although for the purpose of pricing interconnection and access to unbundled elements, which are intermediate products offered to competing carriers, the relevant common costs do not include billing, marketing, and other costs attributable to the provision of retail service.[1695] Given these common costs, setting the price of each discrete network element based solely on the forward-looking incremental costs directly attributable to the production of individual elements will not recover the total forward-looking

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[1694] *See infra*, Section VII.C., discussing default proxy price ceilings and ranges.

[1695] *See infra*, Section VIII.B., describing "avoided costs" in the resale context.

costs of operating the wholesale network.[1696] Because forward-looking common costs are consistent with our forward-looking, economic cost paradigm, a reasonable measure of such costs shall be included in the prices for interconnection and access to network elements.

695. The incumbent LECs generally argue that common costs are quite significant,[1697] while several other parties maintain that these amounts are minimal.[1698] Because the unbundled network elements correspond, to a great extent, to discrete network facilities, and have different operating characteristics, we expect that common costs should be smaller than the common costs associated with the long-run incremental cost of a service. We expect that many facility costs that may be common with respect to the individual services provided by the facilities can be directly attributed to the facilities when offered as unbundled network elements. Moreover, defining the network elements at a relatively high level of aggregation, as we have done,[1699] should also reduce the magnitude of the common costs. A properly conducted TELRIC methodology will attribute costs to specific elements to the greatest possible extent, which will reduce the common costs. Nevertheless, there will remain some common costs that must be allocated among network elements and interconnection services. For example, at the sub-element level of study (e.g., identifying the respective costs of 2-wire loops, 4-wire loops, ISDN loops, and so on), common costs may be a significant proportion of all the costs that must be recovered from sub-elements. Given the likely asymmetry of information regarding network costs, we conclude that, in the arbitration process, incumbent LECs shall

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[1696] *See, e.g.*, AT&T comments at 61-66; Teleport comments at 47-48.

[1697] *See, e.g.*, PacTel reply at 27-28; *see also* Cincinnati Bell reply at 10; USTA comments at Attachment 1 (Affidavit of Jerry A. Hausman), p.4 n.1.

[1698] *See, e.g.*, Competition Policy Institute comments at 19; MCI comments at 66; Texas Public Utility Counsel comments at 24.

[1699] *See supra*, Section V., discussing unbundling requirements.

have the burden to prove the specific nature and magnitude of these forward-looking common costs.

696. We conclude that forward-looking common costs shall be allocated among elements and services in a reasonable manner, consistent with the pro- competitive goals of the 1996 Act. One reasonable allocation method would be to allocate common costs using a fixed allocator, such as a percentage markup over the directly attributable forward-looking costs. We conclude that a second reasonable allocation method would allocate only a relatively small share of common costs to certain critical network elements, such as the local loop and collocation, that are most difficult for entrants to replicate promptly (*i.e.*, bottleneck facilities). Allocation of common costs on this basis ensures that the prices of network elements that are least likely to be subject to competition are not artificially inflated by a large allocation of common costs. On the other hand, certain other allocation methods would not be reasonable. For example, we conclude that an allocation methodology that relies exclusively on allocating common costs in inverse proportion to the sensitivity of demand for various network elements and services may not be used.[1700] We conclude that such an allocation could unreasonably limit the extent of entry into local exchange markets by allocating more costs to, and thus raising the prices of, the most critical bottleneck inputs, the demand for which tends to be relatively inelastic. Such an allocation of these costs would undermine the pro-competitive objectives of the 1996 Act.

697. We believe that our treatment of forward-looking common costs will minimize regulatory burdens and economic

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[1700] *See* Frank P. Ramsey, *A Contribution to the Theory of Taxation*, 37 Econ. J. 47 (1927); *see generally* Kenneth E. Train, *Optimal Regulation: The Economic Theory of Natural Monopoly* 115-40 (1992) (discussing efficiency properties of Ramsey prices); Bridger M. Mitchell & Ingo Vogelsang, *Telecommunications Pricing: Theory and Practice* 43-61 (1991). The sensitivity of demand is measured by the elasticity of demand, which is defined as the percentage change in the quantity of a service demanded for a one per cent change in price.

impact for all parties involved in arbitration of agreements for interconnection and access to unbundled elements, and will advance the 1996 Act's pro-competitive objectives for local exchange and exchange access markets.[1701] In our decisionmaking, we have considered the economic impact of our rules in this section on small incumbent LECs. For example, although opposed to the use of a forward-looking, economic cost methodology, small incumbent LECs favor the recovery of joint and common costs in the event the Commission adopts forward-looking cost methodology. We are adopting such an approach. Moreover, the cost-based pricing methodology that we are adopting is designed to permit incumbent LECs to recover their economic costs of providing interconnection and unbundled elements, which may minimize the economic impact of our decisions on incumbent LECs, including small incumbent LECs. We also note that certain small incumbent LECs are not subject to our rules under section 251(f)(1) of the 1996 Act, unless otherwise determined by a state commission, and certain other small incumbent LECs may seek relief from their state commissions from our rules under section 251(f)(2) of the 1996 Act.[1702]

698. We further conclude that, for the aggregate of all unbundled network elements, incumbent LECs must be given a reasonable opportunity to recover their forward-looking common costs attributable to operating the wholesale network. In no instance should prices exceed the stand-alone cost for a specific element, and in most cases they should be below stand-alone costs. Stand-alone costs are defined as the forward-looking cost that an efficient entrant would incur in providing a given element or any combination of elements. No price higher than stand-alone cost could be sustained in a market from which entry barriers were completely absent. Where there are few common costs, there is likely to be only a minimal difference between the forward- looking costs that are directly

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[1701] *See* Regulatory Flexibility Act, 5 U.S.C. §§ 601 *et seq.*

[1702] 47 U.S.C. § 251(f).

attributable to the particular element, which excludes these costs, and stand-alone cost, which includes all of them. Network elements should not, however, be priced at levels that would enable the incumbent LEC to recover the same common costs multiple times from different elements. Any multiple recovery would be unreasonable and thus in violation of the statutory standard. Further, we note that the sum of the direct costs and the forward-looking common costs of all elements will likely differ from the incumbent LEC's historical, fully distributed costs.

699. *Reasonable Return on Investment and "Profit."* Section 252(d)(1) states that rates for interconnection and access to unbundled elements "may include a reasonable profit."[1703] We find that the TELRIC pricing methodology we are adopting provides for such a reasonable profit and thus no additional profit is justified under the statutory language. We note there are two types of profit. First, in plain English, profit is defined as "the excess of returns over expenditure in a transaction or a series of transactions."[1704] This is also known as a "normal" profit, which is the total revenue required to cover all of the costs of a firm, including its opportunity costs.[1705] Second, there is "economic" profit, which is any return in excess of normal profit.[1706] Thus, for example, if the normal return in an industry is 10 percent and a firm earns a return of 14 percent, the economic profit for that firm is 4 percent. Economic is also referred to as "supranormal" profit. We conclude that the definition of "normal" profit is embodied in "reasonable profit" under Section 252(d)(1).

[1703] 47 U.S.C. § 252(d)(1).

[1704] *Webster's New Collegiate Dictionary* 931 (10th ed. 1994).

[1705] *See* David W. Pearce, *The MIT Dictionary of Modern Economics* (1994) at 310.

[1706] *Id.* at 415.

700. The concept of normal profit is embodied in forward-looking costs because the forward-looking cost of capital, *i.e.*, the cost of obtaining debt and equity financing, is one of the forward-looking costs of providing the network elements. This forward-looking cost of capital is equal to a normal profit. We conclude that allowing greater than normal profits would not be "reasonable" under sections 251(c) and 252(d)(1).[1707] Thus, contrary to the arguments put forth by several incumbent LECs, we find that adding an additional measure of profit to the risk-adjusted cost of capital[1708] in setting the prices for interconnection and access to unbundled elements would violate the requirements of sections 251(c) and 252(d)(1) of the 1996 Act.

[1707] We note that our interpretation is consistent with existing Supreme Court precedent concerning what constitutes a reasonable rate of return for a regulated public utility. For example, in *Bluefield Water Works*, the Court stated:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures.

Bluefield Water Works & Improvement Co. v. Public Service Comm'n of West Virginia, 262 U.S. 679, 692-93 (1923). Similarly, in *FPC v. Hope Natural Gas*, the Court stated:

> . . . it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1994) (*Hope Natural Gas*). *Cf.*, Charles F. Phillips, Jr., *The Economic of Regulation* 260 (Rev. ed. 1965) (". . . a regulated company must be afforded the opportunity not only of assuring its financial integrity so that it can maintain its credit standing and attract additional capital as needed, but also for earnings comparable to those of other companies having corresponding risks.").

[1708] *See supra*, this Section, for a discussion of risk-adjusted cost of capital.

701. Possible accounting losses from the sale of interconnection and unbundled network elements using a reasonable forward-looking cost-based methodology do not necessarily indicate that incumbent LECs are being denied a "reasonable profit" under the statute. The use of a forward-looking, economic, cost-based pricing methodology, including a reasonable allocation of legitimate joint and common costs, will permit incumbent LECs the opportunity to earn a reasonable return on their investment in network elements. Finally, contrary to PacTel's argument, and as discussed below in detail, we conclude that our forward-looking cost-based pricing methodology is consistent with the Fifth Amendment and is not confiscatory.

702. Based on the current record, we conclude that the currently authorized rate of return at the federal or state level is a reasonable starting point for TELRIC calculations, and incumbent LECs bear the burden of demonstrating with specificity that the business risks that they face in providing unbundled network elements and interconnection services would justify a different risk- adjusted cost of capital or depreciation rate. These elements generally are bottleneck, monopoly services that do not now face significant competition. We recognize that incumbent LECs are likely to face increased risks given the overall increases in competition in this industry, which generally might warrant an increased cost of capital, but note that, earlier this year, we instituted a preliminary inquiry as to whether the currently authorized federal 11.25 percent rate of return is too high given the current marketplace cost of equity and debt.[1709] On the basis of the current record, we decline to engage in a time-consuming examination to determine a new rate of return, which may well require a detailed proceeding. States may adjust the cost of capital if a party demonstrates to a state commission that either a higher or lower level of cost of capital is warranted, without

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[1709] *See Common Carrier Bureau Sets Pleading Schedule in Preliminary Rate of Return Inquiry*, Public Notice, 11 FCC Rcd 3651 (Com. Car. Bur. 1996).

that commission conducting a "rate-of-return or other rate based proceeding."[1710] We note that the risk-adjusted cost of capital need not be uniform for all elements. We intend to re-examine the issue of the appropriate risk-adjusted cost of capital on an ongoing basis, particularly in light of the state commissions' experiences in addressing this issue in specific situations.

703. We disagree with the conclusion that, when there are mostly sunk costs, forward-looking economic costs should not be the basis for pricing interconnection elements. The TELRIC of an element has three components, the operating expenses, the depreciation cost,[1711] and the appropriate risk- adjusted cost of capital. We conclude that an appropriate calculation of TELRIC will include a depreciation rate that reflects the true changes in economic value of an asset and a cost of capital that appropriately reflects the risks incurred by an investor. Thus, even in the presence of sunk costs, TELRIC-based prices are an appropriate pricing methodology.

(b) Cost Measures Not Included in Forward-Looking Cost Methodology

704. *Embedded Costs*. We read section 252(d)(1)(A)(i) to prohibit states from conducting traditional rate-of-return or other rate-based proceedings to determine rates for interconnection and access to unbundled network elements. We find that the parenthetical, "(determined without reference to a rate-of- return or other rate-based proceeding),"[1712] does not further define the type of costs that may be considered, but rather specifies a type of proceeding that may not be employed

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[1710] 47 U.S.C. § 252(d)(1)(A)(i).

[1711] Depreciation is the method of recognizing as an expense the cost of a capital investment. Properly calculated economic depreciation is a periodic reduction in the book value of an asset that makes the book value equal to its economic or market value.

[1712] 47 U.S.C. § 252(d)(1)(A)(i).

to determine the cost of interconnection and unbundled network elements. The legislative history demonstrates that Congress was eager to set in motion expeditiously the development of local competition and intended to avoid imposing the costs and administrative burdens associated with a traditional rate case. Prior to the joint conference, the Senate version of the 1996 Act contained the parenthetical language.[1713] In addition, the Senate version of the 1996 Act eliminated rate-of-return regulation,[1714] as did the House version.[1715] Conferees removed the provisions eliminating rate-of-return regulation, but retained the parenthetical.

705. Section 252(d)(1)(A)(i) does not specify whether historical or embedded costs should be considered or whether only forward-looking costs should be considered in setting arbitrated rates. We are not persuaded by incumbent LEC arguments that prices for interconnection and unbundled network elements must or should include any difference between the embedded costs they have incurred to provide those elements and their current economic costs. Neither a methodology that establishes the prices for interconnection and access to network elements directly on the costs reflected in the regulated books of account, nor a price based on forward looking costs plus an additional amount reflecting embedded

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[1713] S. 652, 104th Cong., 1st Sess. § 251(d)(6)(A) (1995) ("the charge (A) shall be (i) based on the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the unbundled element . . . .").

[1714] *Id.* at § 301(a)(3) ("Rate of Return Regulation Eliminated -- (A) In instituting the price flexibility required under paragraph (1) the Commission and the States shall establish alternative forms of regulation for Tier 1 telecommunications carriers that do not include regulation of the rate of return earned by such carrier . . . .").

[1715] H.R. 1555, 104th Cong., 1st Sess. § 248(b) (1995) ("Abolition of Rate-of-Return Regulation -- Notwithstanding any other provision of law, to the extent that a carrier has complied with sections 242 and 244 of this part, the Commission, with respect to rates for interstate or foreign communications, and State commissions, with respect to rates for intrastate communications, shall not require rate-of-return regulation.").

costs, would be consistent with the approach we are adopting. The substantial weight of economic commentary in the record suggests that an "embedded cost"-based pricing methodology would be pro-competitor -- in this case the incumbent LEC -- rather than pro-competition.[1716] We therefore decline to adopt embedded costs as the appropriate basis of setting prices for interconnection and access to unbundled elements. Rather, we reiterate that the prices for the interconnection and network elements critical to the development of a competitive local exchange should be based on the pro- competition, forward-looking, economic costs of those elements, which may be higher or lower than historical embedded costs. Such pricing policies will best ensure the efficient investment decisions and competitive entry contemplated by the 1996 Act, which should minimize the regulatory burdens and economic impact of our decisions on small entities.[1717]

706. Incumbent LECs contend generally that, in order to ensure they will recover their total investment costs and earn a profit, they must recover embedded costs. These costs, they argue, were incurred under federal and regulatory oversight and therefore should be recoverable.[1718] We are not convinced by the incumbent LECs' principal arguments for recognizing embedded cost in setting section 251 pricing rules. Even if the incumbent LECs' contention is correct, increasing the rates for interconnection and unbundled elements offered to competitors would interfere with the development of efficient competition,

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[1716] *See, e.g.*, Ad Hoc Telecommunications Users' Committee reply at Appendix A (Interconnection Pricing Standards for Monopoly Rate Elements in a Potentially Competitive Local Telecommunications Market), p.4; ALTS comments at Attachment B (Competitive Pricing of Interconnection, Unbundled Elements, and Collocation), pp.28-29; AT&T reply at Appendix B (Reply Affidavit of William J. Baumol, Janusz A. Ordover, and Robert D. Willig), pp.3-5; Competition Policy Institute comments at 18-19; DJ comments at 30-31.

[1717] *See* Regulatory Flexibility Act, 5 U.S.C. §§ 601 *et seq.*

[1718] *See, e.g.*, Ameritech reply at 31; BellSouth comments at 57; Lincoln Tel. comments at 16-17.

and is not the proper remedy for any past under- depreciation. Moreover, contrary to assertions by some incumbent LECs, regulation does not and should not guarantee full recovery of their embedded costs. Such a guarantee would exceed the assurances that we or the states have provided in the past.[1719] We have considered the economic impact of precluding recovery of small incumbent LECs' embedded costs.[1720] We do not believe that basing the prices of interconnection and unbundled elements on an incumbent LEC's embedded costs would advance the pro-competitive goals of the statute. We also note that certain small incumbent LECs are not subject to our rules under section 251(f)(1) of the 1996 Act, unless otherwise determined by a state commission, and certain other small incumbent LECs may seek relief from their state commissions from our rules under section 251(f)(2) of the 1996 Act.[1721]

707. We acknowledge that some incumbent LECs may have incurred certain embedded costs reasonably before the passage of the 1996 Act, based on different regulatory regimes. Some incumbent LECs may assert that they have made certain historical investments required by regulators that they have been denied a reasonable opportunity to recover in the past and that the incumbent LECs may no longer have a reasonable opportunity to recover in the new environment of the 1996 Act. The record before us, however, does not support the conclusion that significant residual embedded costs will necessarily result from the availability of network elements at economic costs. To the extent that any such residual consists of costs of meeting universal service obligations, the recovery of such costs can and should be considered in our ongoing universal service

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[1719] *See In the Matter of the Applications of Pacific Bell, Order and Authorization*, 10 FCC Rcd 12448, 12502-12503 (1995).

[1720] *See* Regulatory Flexibility Act, 5 U.S.C. §§ 601 *et seq.*

[1721] 47 U.S.C. § 251(f).

proceeding.[1722] To the extent a significant residual exists within the interstate jurisdiction that does not fall within the ambit of section 254, we intend that to address that issue in our upcoming proceeding on access reform.

708. *Opportunity Cost -- Efficient Component Pricing Rule.* A number of incumbent LECs advocate using the "efficient component pricing rule" (ECPR) to set the prices that incumbent LECs charge new entrants for inputs required to produce the same retail services the incumbent produces. Under the ECPR, the price of an input should be equal to the incremental cost of the input plus the opportunity cost that the incumbent carrier incurs when the new entrant provides the services instead of the incumbent. The opportunity cost, which is computed as revenues less all incremental costs, represents both profit and contribution to common costs of the incumbent, given the existing retail prices of the services being sold.

709. We conclude that ECPR is an improper method for setting prices of interconnection and unbundled network elements because the existing retail prices that would be used to compute incremental opportunity costs under ECPR are not cost-based. Moreover, the ECPR does not provide any mechanism for moving prices towards competitive levels; it simply takes prices as given. The record indicates that both incumbents and new entrants agree that retail prices are not based on costs. Incumbents generally argue that local residential retail prices are below costs while new entrants contend that they exceed competitive levels.[1723] In either case, application of ECPR would result in input prices that would be either higher or lower than those which would be generated in a competitive market and would not lead to efficient retail pricing.

[1722] *See Universal Service* NPRM at para. 32.

[1723] *See, e.g.*, Ameritech comments at 62.

710. In markets where retail prices exceed competitive levels, entry would take place if network element prices were set at efficient competitive levels. The ECPR, however, will serve to discourage competition in these very markets because it relies on the prevailing retail price in setting the price which new entrants pay the incumbent for inputs. While ECPR establishes conditions for efficient entry given existing retail prices, as its advocates contend, the ECPR provides no mechanism that will force retail prices to their competitive levels. We do not believe that Congress envisioned a pricing methodology for interconnection and network elelments that would insulate incumbent LECs' retail prices from competition. Instead, Congress specifically determined that input prices should be based on costs because this would foster competition in the retail market. Therefore, we reject the use of ECPR for establishing prices for interconnection and unbundled elements.

711. As discussed above, the record in this docket shows that end user prices are not cost-based. In *Open Video Systems*, in contrast, we did not find that there would be a problem with the determination of end user prices.[1724] We concluded that "[u]se of [an ECPR] approach is appropriate in circumstances where the pricing is applicable [sic] to a new market entrant (the open video system operator) that will face competition from an existing incumbent provider (the incumbent cable operator), as opposed to circumstances where the pricing is used to establish a rate for an essential input service that is charged to a competing new entrant by an incumbent provider."[1725] In addition, in *Open Video Systems*, we concluded that the ECPR is appropriate because it encourages entry for open video system operators and also enhances the availability of carriage for unaffiliated programmers.[1726] The ECPR generally protects

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[1724] *Implementation of Section 302 of the Telecommunications Act of 1996 -- Open Video Systems*, CS Docket No. 96-46, Second Report and Order, FCC 96-249 (rel. June 3, 1996) (Open Video Systems).

[1725] *Id.* at 127.

[1726] *Id.*

the provider's profits and provides opportunities for third parties to use the provider's inputs. The ECPR does not provide a mechanism to drive retail prices to competitive levels, however. In *Open Video Systems*, we wanted to encourage entry by open video system providers and to encourage them to have incentives to open their systems to unaffiliated programmers. Here, our goal is to ensure that competition between providers, including third party providers using interconnection and unbundled elements, will drive prices toward competitive levels and thus use of the ECPR is inappropriate.

712. *Universal Service Subsidies*. We conclude that funding for any universal service mechanisms adopted in the universal service proceeding may not be included in the rates for interconnection, network elements, and access to network elements that are arbitrated by the states under sections 251 and 252. Sections 254(d) and 254(e) of the 1996 Act mandate that universal service support be recovered in an equitable and nondiscriminatory manner from all providers of telecommunications services.[1727] We conclude that permitting states to include such costs in rates arbitrated under sections 251 and 252 would violate that requirement by requiring carriers to pay specified portions of such costs solely because they are purchasing services and elements under section 251. Section 252(d)(1) requires that rates for interconnection, network elements, and access to network elements reflect the costs of providing those network elements, not the costs of supporting universal service.

713. Section 254(f) provides that a state may adopt equitable, nondiscriminatory, specific, and predictable mechanisms to advance universal service within that state.[1728] If a state collects universal service funding in rates for elements and services

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[1727] Joint Explanatory Statement at 131 ("In keeping with the conferees' intent that universal service support should be clearly identified, [section 254(e)] states that such support should be made explicit ...").

[1728] 47 U.S.C. § 254(f).

pursuant to sections 251 and 252, it will be imposing non-cost based charges in those rates. Including non-cost based charges in the rates for interconnection and unbundled elements is inconsistent with our rules implementing sections 251 and 252 which require that these rates be cost-based. It is also inconsistent with the requirement of section 254(f) that telecommunications carriers contribute to state universal service on a nondiscriminatory basis, because telecommunications carriers requesting interconnection or access to unbundled network elements will be required to make contributions to universal service support through such surcharges.[1729] States may not, therefore, include universal service support funding in the rates for elements and services pursuant to sections 251 and 252, nor may they implement mechanisms that have the same effect. For example, states may not fund universal service support by imposing higher rates for interconnection, unbundled elements, or transport and termination on carriers that offer service to different types of customers or different geographic areas. To the extent that New York's "pay or play" system funds universal service in this manner, it violates sections 251, 252, and 254 of the 1996 Act. Nothing in the 1996 Act or in this Order, however, precludes a state from adopting a universal service funding mechanism, whether interim or otherwise, if such funds are collected in accordance with section 254(f) on an "equitable and nondiscriminatory basis" through "specific, predictable, and sufficient mechanisms that do not rely on or burden Federal universal service support mechanisms."[1730]

714. Our decision here does not exempt carriers purchasing elements or services under section 251 from contributing to (or possibly receiving) universal service support. Rather, the recovery of universal service support costs from telecommunications carriers, including carriers requesting unbundled network elements, will be governed by section 254

[1729] *See infra*, Section VII.D.3., discussing discrimination.

[1730] 47 U.S.C. § 254(f).

of the 1996 Act. Federal universal service support mechanisms will be determined by our decisions reached in CC Docket 96-45, based on the recommendations of the Federal/State Universal Service Joint Board, and states may adopt additional universal service support mechanisms consistent with section 254(f).

715. We are mindful that the requirements of the 1996 Act may be disruptive to existing state universal service support mechanisms during the period commencing with this order and continuing until we complete our universal service proceeding to implement section 254. As discussed in the subsection immediately below, we permit incumbent LECs to continue to recover certain non- cost-based interstate access charge revenues for a limited period of time, largely because of concerns about possible deleterious impacts on universal service. We also authorize incumbent LECs, for a similar limited period of time, to continue to recover explicit intrastate universal service subsidy revenues based on intrastate access charges. This mechanism minimizes any possibility that implementation of sections 251 and 252 will unduly harm universal service during the interim period prior to completion of our universal service and access reform proceedings. Because we conclude this action should adequately provide for the continuation of a portion of existing subsidy flows during a transition period until completion of our proceeding implementing section 254, we decline to permit any additional funding of universal service support through rates for interconnection, unbundled elements, and transport and termination during the interim period.

716. *Interim Application of Access Charges to Purchasers of Unbundled Local Switching Element.* In the introduction of this Order, we emphasize that implementation of section 251 of the 1996 Act is integrally related to both universal service reform as required under section 254, and to reform of the interstate access charge system.[1731] In order to achieve pro-

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[1731] *See supra*, Section I.B.

competitive, deregulatory markets for all telecommunications services, we must create a new system of funding universal service that is specific, explicit, predictable, sufficient, and competitively neutral. We also must move access charges to more cost-based and economically efficient levels. We intend to fulfill both of these goals in the coming months, by completing our pending universal service proceeding to implement section 254 by our statutory deadline of May 1997, and by addressing access charge issues in an upcoming access reform proceeding. The 1996 Act, however, requires us to adopt rules implementing section 251 by August 1996. We are concerned that implementation of the requirements of section 251 now, without taking into account the effects of the new rules on our existing access charge and universal service regimes, may have significant, immediate, adverse effects that were neither intended nor foreseen by Congress.

717. Specifically, as we conclude above, the 1996 Act permits telecommunications carriers that purchase access to unbundled network elements from incumbent LECs to use those elements to provide telecommunications services, including the origination and termination of interstate calls. Without further action on our part, section 251 would allow entrants to use those unbundled network facilities to provide access services to customers they win from incumbent LECs, without having to pay access charges to the incumbent LECs. This result would be consistent with the long term outcome in a competitive market. In the short term, however, while other aspects of our regulatory regime are in the process of being reformed, such a change may have detrimental consequences.

718. The access charge system includes non-cost-based components and elements that at least in part may represent subsidies, such as the carrier common line charge (CCLC) and the transport interconnection charge (TIC). The CCLC recovers part of the allocated interstate costs for incumbent LECs to provide local loops to end users. In the universal service NPRM, we observed that the CCLC may result in higher-volume toll users paying rates that exceed cost, and some customers paying rates that are below cost. We sought comment on whether that subsidy should be continued, and on

whether and how it should be restructured.[1732] The nature of most of the revenues recovered through the TIC is unclear and subject to dispute, although a portion of the TIC is associated with certain costs related to particular transport facilities. Although the TIC was not created to subsidize local rates, some parties have argued in the *Transport* proceeding and elsewhere that some portion of the revenues now recovered through the TIC may be misallocated local loop or intrastate costs that operate to support universal service.[1733] In the forthcoming access reform proceeding, we intend to consider the appropriate disposition of the TIC, including the development of cost-based transport rates as directed by the United States Court of Appeals for the District of Columbia Circuit in *Competitive Telecommunications Association v. FCC (CompTel v. FCC)*.[1734]

719. Without a temporary mechanism such as the one we adopt below, the implementation of section 251 would permit competitive local service providers that also provide interstate long-distance service to avoid totally the CCLC and the TIC, which in part represent contributions toward universal service, by serving their local customers solely through the use of unbundled network elements rather than through resale. We believe that allowing such a result before we have reformed our universal service and access charge regimes would be undesirable as a matter of both economics and policy, because carrier decisions about how to interconnect with incumbent LECs would be driven by regulatory distortions in our access charge rules and our universal service scheme, rather than the

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[1732] *Universal Service* NPRM at paras. 113-14.

[1733] *Transport Rate Structure and Pricing*, CC Docket No. 91-213, Report and Order and Further Notice of Proposed Rulemaking, 7 FCC Rcd 7006, 7065-7066 (1992) (*First Transport Order*). Cf. Letter from Bruce K. Cox, Government Affairs Director, AT&T, to William F. Caton, Acting Secretary, FCC, September 7, 1995 (filed in CC Docket No. 91-213) (suggesting that TIC revenues not allocable to specific transport facilities may represent misallocated common line costs).

[1734] *Competitive Telecommunications Association v. FCC*, No. 96-1168 (D.C. Cir. July 5, 1996).

unfettered operation of a competitive market. Because of our desire to err on the side of caution where universal service may be implicated, we conclude that some action is needed during the interim period before we complete our access reform and universal service proceedings.

720. We conclude that we should establish a temporary transitional mechanism to help complete all of the steps toward the pro-competitive goal of the 1996 Act, including the implementation of a new, competitively-neutral system to fund universal service and a comprehensive review of our system of interstate access charges. Therefore, for a limited period of time, incumbent LECs may recover from interconnecting carriers the CCLC and a charge equal to 75 percent of the TIC for all interstate minutes traversing the incumbent LECs' local switches for which the interconnecting carriers pay unbundled local switching element charges. Incumbent LECs may recover these charges only until the earliest of: (1) June 30, 1997; (2) the effective date of final decisions by the Commission in both the universal service and access reform proceedings; or (3) if the incumbent LEC is a BOC, the date on which that BOC is authorized under section 271 of the 1996 Act to offer in-region interLATA service. The end date for BOCs that are authorized to offer interLATA service shall apply only to the recovery of access charges in those states in which the BOC is authorized to offer such service.

721. We tentatively concluded in the NPRM that purchasers of unbundled network elements should not be required to pay access charges. We reaffirm our conclusion above in our discussion of unbundled network elements that nothing on the face of sections 251(c)(3) and 252(d)(1) compels telecommunications carriers that use unbundled elements to pay these charges, nor limits these carriers' ability to use unbundled elements to originate or terminate interstate calls, and that payment of rates based on TELRIC plus a reasonable allocation of common costs, pursuant to section 251(d)(1), represents full compensation to the incumbent LEC for use of the network elements that telecommunications carriers purchase. Because of the unique situation described in the preceding paragraphs, however, we conclude, contrary to our

proposal in the NPRM, that during a time-limited period, interconnecting carriers should not be able to use unbundled elements to avoid access charges in all cases. As detailed below, this temporary mechanism will apply only to carriers that purchase the local switch as an unbundled network element, and use that element to originate or terminate interstate traffic.[1735] We are applying these transitional charges to the unbundled local switching element, rather than to any other network elements, because such an approach is most closely analogous to the manner in which the CCLC and TIC are recovered in the interstate access regime. Currently, the CCLC and TIC apply to interstate switched access minutes that traverse incumbent LECs' local switches. Applying the CCLC and 75 percent of the TIC to the unbundled local switching element is consistent with our goal of minimizing disruptions while we reform our universal service system and consider changes to our access charge mechanisms. Moreover, the CCLC and the TIC are recovered on a per-minute basis, and the local switch is the primary point at which incumbent LECs are capable of recording interstate minutes for traffic associated with end user customers of requesting carriers.

722. We have crafted this short-term continuation of certain access charge revenue flows to minimize the possibility that incumbent LECs will be able to "double recover" through access charges the facility costs that new entrants have already paid to purchase unbundled elements. For that reason, we do not permit incumbent LECs to assess on purchasers of the unbundled local switching element any interstate access charges other than the CCLC and 75 percent of the TIC. The other access charges are all designed to recover the cost of particular facilities invo
lved in the provision of interstate access services, such as local switching, dedicated interoffice transport circuits, and tandem switching. Imposition of these facility-based access charges in

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[1735] As discussed *infra*, carriers that choose to enter a local market through resale of an incumbent LEC's intrastate local exchange service will pay interstate and intrastate access charges to originate and terminate toll traffic for end user customers that purchase that resold local exchange service.

addition to the cost-based charges for comparable network elements established under Section 252 could result in double recovery. The mechanism we establish will ensure that incentives created by non-cost-based elements of access charges do not result in harmful consequences prior to completion of access reform and our universal service proceeding. Imposition of additional access charges is therefore not necessary. We note that this mechanism serves to minimize the potentially disruptive effects of our decisions on incumbent LECs, including small incumbent LECs.[1736]

723. For the same reason, we permit incumbent LECs to recover only 75 percent of the TIC. Some portion of the TIC recovers revenues associated with specific transport facilities. To the extent that these costs can be identified clearly, they should not be imposed on new entrants through the TIC. Incumbent LECs will be fully compensated for any transport facilities that new entrants purchase from them through the unbundled element rates states establish under 252(d)(1), which, as we have stated, must be based on economic cost rather than access charges. In our interim transport rate restructuring, we explicitly set the initial tandem switching rate at 20 percent of the interstate revenue requirement, with the remainder included in the TIC.[1737] In addition, certain costs of upgrading incumbent LEC networks to support SS7 signaling were allocated to transport through then-existing separations procedures. In our interim transport rate restructuring, we did not create any facility-based charges to recover these costs,[1738] so the associated revenues presumably were incorporated into the TIC. There may also be other revenues associated with transport facilities that are recovered today through the TIC. While we are uncertain of the precise magnitude of these revenues, in our best judgment, based on the record in the *Transport* proceeding and other information before us, we find

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[1736] *See* Regulatory Flexibility Act, 5 U.S.C. §§ 601 *et seq*.

[1737] *First Transport Order*, 7 FCC Rcd at 7019.

[1738] *First Transport Order*, 7 FCC Rcd at 7019.

that it is likely that these revenues approach, but probably do not exceed 25 percent of the TIC for most incumbent LECs. Thus, we believe that 25 percent is a conservative amount to exclude from the TIC to ensure that incumbent LECs do not double recover revenues associated with transport facilities from new entrants. Moreover, the Court in *CompTel v. FCC* remanded our *Transport* decision, in part, because of the inclusion of tandem switching revenues in the TIC rather than in the rate element for tandem switching. We find that excluding 25 percent of the TIC represents a reasonable exercise of our discretion to prevent revenues associated with the tandem switching revenue requirement from being recovered from purchasers or unbundled local switching.

724. We strongly emphasize that these charges will apply to purchasers of the unbundled switching element only for a very limited period, to avoid the possible harms that might arise if we were to ignore the effects on access charges and universal service of implementation of section 251. BOCs shall not be permitted to recover these revenues once they are authorized to offer in- region interLATA service, because at that time the potential loss of access charge revenues faced by a BOC most likely will be able to be offset by new revenues from interLATA services. Moreover, although we do not prejudge the conditions necessary to grant BOC petitions under section 271 to offer in- region interLATA service, we do decide that BOCs should not be able to charge the CCLC and the TIC, which are not based on forward-looking economic costs, to competitors that use unbundled elements under section 251 once they are authorized to provide in-region interLATA service. Only BOCs are subject to special restrictions in the 1996 Act to ensure that their entry into the in- region interLATA market does not have an adverse impact on competition. We conclude that this additional trigger date after which BOCs may not continue to receive access charges from purchasers of unbundled local switching is consistent with this Congressional design.

725. We have selected June 30, 1997 as an ultimate end date for this transitional mechanism to coincide with the effective date for LEC annual access tariffs, and because we believe it is

imperative that this transitional requirement be limited in duration. We can conceive of no circumstances under which the requirement that certain entrants pay the CCLC or a portion of the TIC on calls carried over unbundled network elements would be extended further. The fact that access or universal service reform have not been completed by that date would not be a sufficient justification, nor would any actual or asserted harm to the financial status of the incumbent LECs. By June 30, 1997, the industry will have had sufficient time to plan for and adjust to potential revenue shifts that may result from competitive entry. Thus, the economic impact of our decision on competitive local service providers, including those that are small entities, should be minimized.[1739]

726. We believe that we have ample legal authority to implement this temporary transitional measure, and we find that this approach is consistent with the letter and spirit of the 1996 Act. We recognize that the CCLC and TIC have not been developed in accordance with the pricing standards of section 252(d)(1), and that to comply with the 1996 Act, the rates that states establish for interconnection and unbundled network elements may not include non-cost-based amounts or subsidies. The 1934 and 1996 Acts do, however, give us legal authority to determine, for policy reasons, that users of LEC facilities should pay certain access charges for a period of time.[1740] Section 4(i) of the 1934 Act authorizes the Commission to "perform any and all acts . . . not inconsistent with this Act, as may be necessary in the execution of its functions."[1741] Given the extraordinary upheaval in the industry's structure set in motion by the 1996 Act, and the specific concerns described above, we believe that a temporary mechanism is necessary in

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[1739] *See* Regulatory Flexibility Act, 5 U.S.C. §§ 601 *et seq.*

[1740] *See, e.g., New England Tel. and Tel. Co. v. FCC*, 826 F.2d 1101 (D.C. Cir 1987); *North American Telecommunications Association v. FCC*, 772 F.2d (7th Cir. 1085); *Lincoln Tel. and Tel. Co. v. FCC*, 659 F.2d (D.C. Cir. 1989).

[1741] 47 U.S.C. § 4(i).

order to ensure that the policy goals underlying the access charge system and the Communications Act itself are not undermined. Further, we believe section 251(g) of the 1996 Act lends support to our decision. As discussed above, section 251(g) does not require that incumbent LECs continue to receive access charge revenues when telecommunications carriers use unbundled incumbent LEC network elements to originate and terminate interstate traffic. That section does, however, provide evidence of Congressional recognition of the potential tension between existing interconnection obligations, such as access charges, and the new methods of interconnection mandated by section 251, and therefore supports our decision to create a limited-duration mechanism to address this tension.

727. The decision of the court in *CompTel v. FCC* to remand our decision to adopt the TIC is not inconsistent with this approach. The Court's concern stemmed, in part, from the inclusion of a portion of the interstate tandem switching revenue requirement in the TIC. We have excluded from the charges that purchasers of unbundled local switching must pay a percentage of the TIC that, at a minimum, includes these allocated tandem switching revenues from the transitional charges that incumbent LECs may assess on IXCs.[1742] Furthermore, the Court directed the Commission to develop a cost-based transport rate structure, or to explain why it chose not to do so.[1743] We intend to fulfill this obligation in the forthcoming access reform proceeding. The charge equal to 75 percent of the TIC will be applied only as an interim measure for a brief, clearly-identified period, until that restructuring of access charges is completed. The court expressly acknowledged that the 1996 Act would have implications for

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[1742] As discussed above, we estimate that the tandem switching, SS7, and other costs associated with transport facilities now recovered through the TIC likely do not exceed 25% of the TIC for most incumbent LECs.

[1743] *Competitive Telecommunications Association v. FCC*, No. 96-1168 at 26-27.

the access charge system.[1744] For the reasons described above, we conclude that these effects necessitate temporary application of a portion of the TIC to entrants that win end user customers from LECs, and that purchase the local switch as an unbundled element to originate and terminate interstate and intrastate toll traffic for such end users. In the access reform proceeding, we intend to determine the appropriate disposition for these revenues. Until we have had the opportunity to do so, however, we permit incumbent LECs to recover a transitional charge equal to 75 percent of the TIC under the limited circumstances described herein.

728. The interim mechanism we establish here differs from the waiver relief we have previously granted to NYNEX and Ameritech to permit them to recover certain interstate access charge revenues through "bulk billing" of revenues to all interstate switched access customers.[1745] Those orders responded to waiver requests filed prior to the passage of the 1996 Act. Our responsibility in those proceedings was to determine whether special circumstances existed, and whether the specific relief requested better served the public interest than continued application of our general rules. By constrast, the action we take today addresses industry-wide issues that arise from the new regime put into place by section 251 of the 1996 Act, which allows states to establish unbundled network element rates that recover the full unseparated cost of elements. Our response to the Ameritech and NYNEX waiver petitions does not, simply because those petitions also concerned access charge recovery, constrain our decision in this proceeding.

[1744] *Id.* at 12-13.

[1745] *See The NYNEX Tel. Cos. Petition for Waiver, Transition Plan to Preserve Universal Service in a Competitive Environment, Memorandum Opinion and Order*, 10 FCC Rcd 7445 (1995), reconsideration pending (NYNEX USPP Order); *Ameritech Operating Companies Petition for a Declaratory Ruling and Related Waivers to Establish a New Regulatory Model for the Ameritech Region, Order*, FCC 96-58 (released Feb. 15, 1996) (*Ameritech Customers First Order*).

729. It would be unreasonable to provide such a transitional mechanism on the federal level, but to deny similar authority to the states. Therefore, states may continue existing explicit universal service support mechanisms based on intrastate access charges for an interim period of a similar brief, clearly-defined length. During that period, unless decided otherwise by the state, incumbent LECs may continue to recover such revenues from purchasers of unbundled local switching elements that use those elements to originate or terminate intrastate toll calls for end user customers they win from incumbent LECs. States may terminate these mechanisms at any time. We define mechanisms based on intrastate access charges as those mechanisms that require purchasers of intrastate access services from incumbent LECs to pay non-cost-based charges for those access services on the basis of their intrastate access minutes of use.

730. We do not intend, however, that such a transitional mechanism eviscerate the requirements of sections 252 and 254, which, as we have stated, prohibit funding of universal service subsidies through rates for interconnection and unbundled network elements. Mechanisms such as New York's "pay or play" system, which would impose intrastate access charges on non-access services rather than allowing incumbent LECs to recover non-cost-based revenues from purchasers of access services, may not be included in this interim system. Such a result is justified because state "pay or play" mechanisms do not at present constitute a significant revenue stream to incumbent LECs, and therefore elimination of this mechanism is unlikely, in the short term, to have significant detrimental effects on universal service support.

731. These state mechanisms must end on the earlier of: (1) June 30, 1997; or (2) if the incumbent LEC that receives the transitional access charge revenues is a BOC, the date on which that BOC is authorized under section 271 of the 1996 Act to offer in-region interLATA service. With one exception, the analysis provided above as to the rationale for the end dates for the transitional interstate access charge mechanism applies here as well. Because our access reform proceeding focuses on federal charges, and because the full extent of the section 254

universal service mechanism remains to be determined in that proceeding, intrastate access charge-based universal service support mechanisms should not now be required to terminate upon the completion of those proceedings.

732. As with our decision to permit incumbent LECs to continue to receive certain interstate access charge revenues from some purchasers of unbundled local switching for a limited period of time, we believe our decision to allow states to preserve certain intrastate universal service support mechanisms based on access charges is within our authority under section 251(d)(1) of the 1996 Act, and section 4(i) of the 1934 Act. Moreover, although section 251(g) does not directly refer to intrastate access charge mechanisms, it would be incongruous to conclude that Congress was concerned about the effects of potential disruption to the interstate access charge system, but had no such concerns about the effects on analogous intrastate mechanisms.

(c) Fifth Amendment Issues

733. We conclude that our decision that prices for incumbent LECs' unbundled elements and interconnection offerings be based on forward-looking economic cost does not violate the incumbent LECs' rights under the Fifth Amendment of the Constitution. The Supreme Court has recognized that public utilities owned and operated by private investors, even though their assets are employed in the public interest to provide consumers with service, may assert their rights under the Takings Clause of the Fifth Amendment.[1746] In applying the Takings Clause to rate setting for public utilities, the Court has stated that "[t]he guiding principle has been that the Constitution protects utilities from being limited to a charge for

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[1746] The Fifth Amendment provides that, "private property [shall not] be taken for public use, without just compensation." U.S. Const. amend. V. *See Duquesne Light Co. v. Barasch*, 488 U.S. 299, 307 (1989) (*Duquesne*).

their property serving the public which is so 'unjust' as to be confiscatory." [1747]

734. The Supreme Court has held that the determination of whether a rate is confiscatory depends on whether that rate is just and reasonable, and not on what methodology is used.[1748] In *Federal Power Comm'n v. Hope Natural Gas Co.*, the Court upheld the Federal Power Commission's order that required the company to make a large reduction in wholesale gas rates. The commission based its determination of a reasonable rate of return on a plant valuation determined by using a historical cost methodology that was only half as large as the company's own valuation based on forward-looking reproduction costs. In its decision, the Court set forth the governing legal standard for determining whether a rate is constitutional:

> Under the statutory standard of "just and reasonable" it is the result reached not the method employed that is controlling. It is not the theory but the impact of the rate order which counts. If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end. The fact that the method employed to reach that result may contain infirmities is not then important.[1749]

735. The Court went on to explain that, in determining whether a rate is reasonable, the regulatory body must balance the interests of both the investor and consumer.[1750] "From the investor or company point of view, it is important that there be

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[1747] *Duquesne*, 488 U.S. at 307 (*citing Covington & Lexington Turnpike Road Co. v. Sandford*, 164 U.S. 578, 597 (1896)).

[1748] *Hope Natural Gas*, 320 U.S. at 602-603; *see also Duquesne; In re Permian Basin Area Rate Cases*, 390 U.S. 747 (1968); *Federal Power Commission v. Memphis Light, Gas & Water Division*, 411 U.S. 458 (1973); *Jersey Central Power & Light v. FERC*, 810 F.2d 1168 (D.C. Cir. 1987).

[1749] *Hope Natural Gas*, 320 U.S. at 602.

[1750] *Id.*

enough revenue not only for operating expenses but also for the capital costs of the business .... [T]he return on the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks."[1751]

736. Under sections 251(c)(2) and (3) of the 1996 Act, incumbent LECs must establish rates for interconnection and unbundled elements that are just and reasonable.[1752] In adopting the rules that govern those rates, under *Hope Natural Gas* we must consider whether the end result of incumbent LEC rates is just and reasonable. Incumbent LECs argue that establishing a rate structure that does not permit recovery of historical or embedded costs is confiscatory. We disagree. As stated above, the Court has consistently held since *Hope Natural Gas* that it is the end result, not the method used to achieve that result, that is the issue to be addressed.[1753] Indeed, the Court has found that the "fixing of prices, like other applications of the police power, may reduce the value of the property which is being regulated. But the fact that the value is reduced does not mean that the regulation is invalid."[1754] Moreover, the Court has upheld as reasonable changes in ratemaking methodology when the change resulted in the exclusion of historical costs prudently incurred.[1755] Thus, the mere fact that an incumbent LEC may not be able to set rates that will allow it to recover a particular cost incurred in establishing its regulated network does not, in and of itself, result in confiscation.

737. Moreover, *Hope Natural Gas* requires only that the end result of our overall regulatory framework provides LECs a

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[1751] *Id.* at 603.

[1752] 47 U.S.C. § 251(c)(2) and (3).

[1753] *See, e.g., Duquesne*, 488 U.S. at 310; *Hope Natural Gas*, 320 U.S. at 602.

[1754] *Hope Natural Gas*, 320 U.S. at 601.

[1755] *Duquesne*, 488 U.S. at 301-302.

reasonable opportunity to recover a return on their investment. In other words, incumbent LECs' overall rates must be considered, including the revenues for other services under our jurisdiction.[1756]

738. In this proceeding, we are establishing pricing rules that should produce rates for monopoly elements and services that approximate what the incumbent LECs would be able to charge if there were a competitive market for such offerings. We believe that a forward-looking economic cost methodology enables incumbent LECs to recover a fair return on their investment, i.e., just and reasonable rates. The record does not compel a contrary conclusion. No incumbent LEC has provided persuasive evidence that prices based on a forward-looking economic cost methodology would have a significant impact on its "financial integrity." We further note that at least one federal appellate court has held incremental cost-based pricing constitutional.[1757]

739. Incumbent LECs may seek relief from the Commission's pricing methodology if they provide specific information to show that the pricing methodology, as applied to them, will result in confiscatory rates. We also do not completely foreclose the possibility that incumbent LECs will be afforded an opportunity to recover, to some extent, their embedded costs through a mechanism separate from rates for interconnection and unbundled network elements. As stated above, we intend to explore this issue in detail in our upcoming access reform proceeding.

740. GTE argues that the proper standard to review our ratemaking methodology is the just compensation standard generally reserved for takings of property. This is in effect a contention that the 1996 Act's physical collocation and

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[1756] However, we may not consider incumbent LECs' revenue derived from services not under our jurisdiction. *Smith v. Ill. Bell*, 282 U.S. 133 (1930).

[1757] *Metropolitan Transp. Auth. v. Interstate Commerce Commission*, 792 F.2d 287, 297 (2d Cir.), *cert. denied*, 479 U.S. 1017 (1986).

unbundled network facility requirements constitute physical occupation of their property that should be deemed a taking and that must be subject to "just compensation." Assuming for the sake of argument that the physical collocation and unbundled facilities requirements do result in a taking, we nevertheless find that the ratemaking methodology we have adopted satisfies the just compensation standard. Just compensation is normally measured by the fair market value of the property subject to the taking.[1758] Just compensation is not, however, intended to permit recovery of monopoly rents.[1759] The just and reasonable rate standard of TELRIC plus a reasonable allocation of the joint and common costs of providing network elements that we are adopting attempts to replicate, with respect to bottleneck monopoly elements, the rates that would be charged in a competitive market,[1760] and, we believe, is entirely consistent with the just compensation standard. Indeed, a similar rate methodology based on incremental costs has been found to satisfy the just compensation requirement.[1761] For these reasons, we conclude that, even if the 1996 Act's physical collocation and unbundled network facility requirements constitute a taking, a forward-looking economic cost methodology satisfies the Constitution's just compensation standard.

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[1758] *See, e.g., United States v. Miller*, 317 U.S. 369, 374 (1943) (holding that just compensation can readily be set by ascertaining the property's fair market value, *i.e.*, "what a willing buyer would pay in cash to a willing seller").

[1759] *See, e.g., Lord Mfg. Co. v. United States*, 84 F.Supp. 748, 755-56 (Ct.Cl. 1949), *citing United States v. Cors*, 337 U.S. 325, 334 (1949).

[1760] *Compare Policy and Rules Concerning Rates for Dominant Carriers*, Further Notice of Proposed Rulemaking, CC Docket No. 87-313, 3 FCC Rcd 3195, 3200-01 (1988).

[1761] *Metropolitan Transp. Auth. v. Interstate Commerce Commission*, 792 F.2d at 297.

5. Discussion

907. Resale will be an important entry strategy for many new entrants, especially in the short term when they are building their own facilities. Further, in some areas and for some new entrants, we expect that the resale option will remain an important entry strategy over the longer term. Resale will also be an important entry strategy for small businesses that may lack capital to compete in the local exchange market by purchasing unbundled elements or by building their own networks. In light of the strategic importance of resale to the development of competition, we conclude that it is especially important to promulgate national rules for use by state commissions in setting wholesale rates. For the same reasons discussed in Section II.D of the Order, we believe that we have legal authority under the 1996 Act to articulate principles that will apply to the arbitration or review of wholesale rates. We also believe that articulating such principles will promote expeditious and efficient entry into the local exchange market. Clear resale rules will create incentives for parties to reach agreement on resale arrangements in voluntary negotiations. Clear rules will also aid states in conducting arbitrations that will be administratively workable and will produce results that satisfy the intent of the 1996 Act. The rules we adopt and the determinations we make in this area are crafted to achieve these purposes. We also note that clear resale rules should minimize regulatory burdens and uncertainty for all parties, including small entities and small incumbent LECs.[2192]

908. The statutory pricing standard for wholesale rates requires state commissions to (1) identify what marketing, billing, collection, and other costs will be avoided by incumbent LECs when they provide services at wholesale; and (2) calculate the portion of the retail prices for those services that is attributable to the avoided costs. Our rules provide two methods for making these determinations. The first, and preferred, method requires state commissions to identify and calculate avoided costs based on avoided cost studies. The second method allows

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[2192] *See* Regulatory Flexibility Act, 5 U.S.C. §§ 601 *et seq.*

states to select, on an interim basis, a discount rate from within a default range of discount rates adopted by this Commission. They may then calculate the portion of a retail price that is attributable to avoided costs by multiplying the retail price by the discount rate.

909. We adopt a minimum set of criteria for avoided cost studies used to determine wholesale discount rates. The record before us demonstrates that avoided cost studies can produce widely varying results, depending in large part upon how the proponent of the study interprets the language of section 252(d)(3). The criteria we adopt are designed to ensure that states apply consistent interpretations of the 1996 Act in setting wholesale rates based on avoided cost studies which should facilitate swift entry by national and regional resellers, which may include small entities.[2193] At the same time, our criteria are intended to leave the state commissions broad latitude in selecting costing methodologies that comport with their own ratemaking practices for retail services. Thus, for example, our rules for identifying avoided costs by USOA expense account are cast as rebuttable presumptions, and we do not adopt as presumptively correct any avoided cost model.

910. Based on the comments filed in this proceeding and on our analysis of state decisions setting wholesale discounts, we adopt a default range of rates that will permit a state commission to select a reasonable default wholesale rate between 17 and 25 percent below retail rate levels. A default wholesale discount rate shall be used if: (1) an avoided cost study that satisfies the criteria we set forth below does not exist; (2) a state commission has not completed its review of such an avoided cost study; or (3) a rate established by a state commission before release of this Order is based on a study that does not comply with the criteria described in the following section. A state commission must establish wholesale rates based on avoided cost studies within a reasonable time from when the default rate was selected. This approach will enable state commissions to complete arbitration proceedings within

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[2193] *See Id.*

the statutory time frames even if it is infeasible to conduct full-scale avoided cost studies that comply with the criteria described below for each incumbent LEC.

a. Criteria for Cost Studies

911. There has been considerable debate on the record in this proceeding and before the state commissions on whether section 252(d)(3) embodies an "avoided" cost standard or an "avoidable" cost standard. We find that "the portion [of the retail rate] . . . attributable to costs that will be avoided" includes all of the costs that the LEC incurs in maintaining a retail, as opposed to a wholesale, business. In other words, the avoided costs are those that an incumbent LEC would no longer incur if it were to cease retail operations and instead provide all of its services through resellers. Thus, we reject the arguments of incumbent LECs and others who maintain that the LEC must actually experience a reduction in its operating expenses for a cost to be considered "avoided" for purposes of section 252(d)(3). We do not believe that Congress intended to allow incumbent LECs to sustain artificially high wholesale prices by declining to reduce their expenditures to the degree that certain costs are readily avoidable. We therefore interpret the 1996 Act as requiring states to make an objective assessment of what costs are reasonably avoidable when a LEC sells its services wholesale. We note that Colorado, Georgia, Illinois, New York, and Ohio commissions have all interpreted the 1996 Act in this manner.[2194]

[2194] *See, e.g.*, U S West Communications, Inc. Filing Advice Letter No. 2610 in Compliance with Commission Decision No. C96-521 Adopting Emergency Rules, Docket No. 96S-233T (Colorado Commission June 21, 1996) at paras. 12-13; Petition of AT&T for the Commission to Establish Resale Rules, Rates, Terms, and Conditions and Initiate Unbundling of Services, Docket No. 6352U (Georgia Commission June 21, 1996); Petition for a Total Local Exchange Wholesale Service Tariff from Illinois Bell Telephone Company, Nos. 95-0458 and 95-0531 (consol.) (Illinois Commission June 26, 1996) at 27-34; Joint Complaint of AT&T Communications of New York, Inc., MCI Telecommunications Corporation, WorldCom, Inc. d/b/a LDDS WorldCom and the Empire Association of Long Distance Telephone Companies, Inc. Against New York Telephone Company Concerning Wholesale Provisioning of Local Exchange Service

912. We find that, under this "reasonably avoidable" standard discussed above, an avoided cost study must include indirect, or shared, costs as well as direct costs. We agree with MCI, AT&T, and the California, Illinois, Ohio, Colorado, and Georgia commissions that some indirect or shared costs are avoidable and likely to be avoided when a LEC provides retail services to a reseller instead of to the end user. This is because indirect or shared costs, such as general overheads, support all of the LEC's functions, including marketing, sales, billing and collection, and other avoided retail functions. Therefore, a portion of indirect costs must be considered "attributable to costs that will be avoided" pursuant to section 252(d)(3). It is true that expenses recorded in indirect or shared expense accounts will continue to be incurred for wholesale operations. It is also true, however, that the overall level of indirect expenses can reasonably be expected to decrease as a result of a lower level of overall operations resulting from a reduction in retail activity.

913. A portion of contribution, profits, or mark-up may also be considered "attributable to costs that will be avoided"[2195] when services are sold wholesale. MCI's model makes this attribution by means of a calculation that applies the same mark-up to wholesale services as to retail services. The Illinois Commission achieved a similar effect by removing a pro rata portion of contribution from the retail rate for each service. In AT&T's model, the portion of return on investment (profits) that was attributable to assets used in avoided retail activities was treated as an avoided cost. We find that these approaches are consistent with the 1996 Act.

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by New York Telephone Company and Sections of New York Telephone's Tariff No. 900, Case 95-C-0657 (New York Commission July 18, 1996); Petition of Rochester Telephone Corp. for Approval of a Proposed Restructuring Plan, Case 93-C-0103 (New York July 18, 1996); Commission Investigation Relative to the Establishment of Local Exchange Competition and Other Competitive Issues, Case No. 95-845-TP-COI (Ohio Commission June 12, 1990) at 30-31.

[2195] 47 U.S.C. § 252(d)(3).

914. An avoided cost study may not calculate avoided costs based on non-cost factors or policy arguments, nor may it make disallowances for reasons not provided for in section 252(d)(3). The language of section 252(d)(3) makes no provision for selecting a wholesale discount rate on policy grounds. We therefore reject NCTA's argument that discount rates should be ten percent or less in order to avoid discouraging facilities-based competition, as well as AT&T's suggestion that wholesale discount rates should be set at levels that ensure the viability of the reseller's business. We also reject, for example, MCI's assertion that no external relations or research and development costs should be allowed in wholesale rates because the activities represented by those costs are contrary to the interests of the LEC competitors that purchase wholesale services.[2196] Our analysis also precludes a state commission from adopting AT&T's suggestion that an increment should be added to the base discount rate to compensate resellers for alleged deficiencies in the provisioning of services.

915. The 1996 Act requires that wholesale rates be based on existing retail rates, and thus clearly precludes use of a "bottom up" TSLRIC study to establish wholesale rates that are not related to the rates for the underlying retail services. We thus reject the suggestions of those parties that ask us to require use of TSLRIC to set wholesale rates. The 1996 Act does not, however, preclude use of TSLRIC cost studies to identify the portion of a retail rate that is attributable to avoided retail costs. TSLRIC studies would be entirely appropriate in states where the retail rates were established using a TSLRIC method. For example, the Illinois Commission calculated its wholesale rate using an avoided cost formula and long run incremental cost studies. Embedded cost studies, such as the studies used by the Georgia Commission, may also be used to identify avoided costs. Ideally, a state would use a study methodology that is consistent with the manner in which it sets retail rates.

[2196] See MCI comments at Attachment 2 (Pricing of Wholesale Services), p. 6-7.

916. We neither prohibit nor require use of a single, uniform discount rate for all of an incumbent LEC's services. We recognize that a uniform rate is simple to apply, and avoids the need to allocate avoided costs among services. Therefore, our default wholesale discount is to be applied uniformly. On the other hand, we also agree with parties who observe that avoided costs may, in fact, vary among services. Accordingly, we allow a state to approve nonuniform wholesale discount rates, as long as those rates are set on the basis of an avoided cost study that includes a demonstration of the percentage of avoided costs that is attributable to each service or group of services.

917. All costs recorded in accounts 6611 (product management), 6612 (sales), 6613 (product advertising) and 6623 (customer services) are presumed to be avoidable. The costs in these accounts are the direct costs of serving customers. All costs recorded in accounts 6621 (call completion services) and 6622 (number services) are also presumed avoidable, because resellers have stated they will either provide these services themselves or contract for them separately from the LEC or from third parties. These presumptions regarding accounts 6611-6613 and 6621-6623 may be rebutted if an incumbent LEC proves to the state commission that specific costs in these accounts will be incurred with respect to services sold at wholesale, or that costs in these accounts are not included in the retail prices of the resold services.

918. General support expenses (accounts 6121-6124), corporate operations expenses (accounts 6711, 6612, 6721-6728), and telecommunications uncollectibles (account 5301) are presumed to be avoided in proportion to the avoided direct expenses identified in the previous paragraph. Expenses recorded in these accounts are tied to the overall level of operations in which an incumbent LEC engages. Because the advent of wholesale operations will reduce the overall level of operations -- for example, staffing should decrease because customer inquiries and billing and collection activity will decrease -- overhead and support expenses are in part avoided. We select the revenue offset account of 5301 rather than

accounts 5300 or 6790 because account 5301 most directly represents overheads attributable to the services being resold.

919. Plant-specific and plant non-specific expenses (other than general support expenses) are presumptively not avoidable.

920. In the case of carriers designated as Class B under section 32.11 of our rules that use certain summary accounts in lieu of accounts designated in this subsection of the Order, our avoided cost study criteria shall apply to the relevant summary account in its entirety.[2197]

[2197] See Regulatory Flexibility Act, 5 U.S.C. §§ 601 et seq.

APPENDIX D

Statutory Provisions Involved

FROM TITLE 47. TELEGRAPHS, TELEPHONES, AND RADIOTELEGRAPHS
CHAPTER 5--WIRE OR RADIO COMMUNICATION
SUBCHAPTER II--COMMON CARRIERS

§ 251. Interconnection

(a) General duty of telecommunications carriers

Each telecommunications carrier has the duty--

(1) to interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers; and

(2) not to install network features, functions, or capabilities that do not comply with the guidelines and standards established pursuant to section 255 or 256 of this title.

(b) Obligations of all local exchange carriers

Each local exchange carrier has the following duties:

(1) Resale

The duty not to prohibit, and not to impose unreasonable or discriminatory conditions or limitations on, the resale of its telecommunications services.

(2) Number portability

The duty to provide, to the extent technically feasible, number portability in accordance with requirements prescribed by the Commission.

(3) Dialing parity

The duty to provide dialing parity to competing providers of telephone exchange service and telephone toll service, and the duty to permit all such providers to have nondiscriminatory access to telephone numbers, operator services, directory assistance, and directory listing, with no unreasonable dialing delays.

(4) Access to rights-of-way

The duty to afford access to the poles, ducts, conduits, and rights-of-way of such carrier to competing providers of telecommunications services on rates, terms, and conditions that are consistent with section 224 of this title.

(5) Reciprocal compensation

The duty to establish reciprocal compensation arrangements for the transport and termination of telecommunications.

(c) Additional obligations of incumbent local exchange carriers

In addition to the duties contained in subsection (b) of this section, each incumbent local exchange carrier has the following duties:

(1) Duty to negotiate

The duty to negotiate in good faith in accordance with section 252 of this title the particular terms and conditions of agreements to fulfill the duties described in paragraphs (1) through (5) of subsection (b) of this section and this subsection. The requesting telecommunications carrier also has the duty to negotiate in good faith the terms and conditions of such agreements.

(2) Interconnection

The duty to provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network--

(A) for the transmission and routing of telephone exchange service and exchange access;

(B) at any technically feasible point within the carrier's network;

(C) that is at least equal in quality to that provided by the local exchange carrier to itself or to any subsidiary, affiliate, or any other party to which the carrier provides interconnection; and

(D) on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, in accordance with the terms and conditions of the agreement and the requirements of this section and section 252 of this title.

(3) Unbundled access

The duty to provide, to any requesting telecommunications carrier for the provision of a telecommunications service, nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory in accordance with the terms and conditions of the agreement and the requirements of this section and section 252 of this title. An incumbent local exchange carrier shall provide such unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications service.

(4) Resale

The duty--

(A) to offer for resale at wholesale rates any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers; and

(B) not to prohibit, and not to impose unreasonable or discriminatory conditions or limitations on, the resale of such telecommunications service, except that a State commission may, consistent with regulations prescribed by the Commission under this section, prohibit a reseller that obtains at wholesale rates a telecommunications service that is available at retail only to a category of subscribers from offering such service to a different category of subscribers.

(5) Notice of changes

The duty to provide reasonable public notice of changes in the information necessary for the transmission and routing of services using that local exchange carrier's facilities or networks, as well as of any other changes that would affect the interoperability of those facilities and networks.

(6) Collocation

The duty to provide, on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, for physical collocation of equipment necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier, except that the carrier may provide for virtual collocation if the local exchange carrier demonstrates to the State commission that physical collocation is not practical for technical reasons or because of space limitations.

(d) Implementation

(1) In general

Within 6 months after February 8, 1996, the Commission shall complete all actions necessary to establish regulations to implement the requirements of this section.

(2) Access standards

In determining what network elements should be made available for purposes of subsection (c)(3) of this section, the Commission shall consider, at a minimum, whether--

(A) access to such network elements as are proprietary in nature is necessary; and

(B) the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.

(3) Preservation of State access regulations

In prescribing and enforcing regulations to implement the requirements of this section, the Commission shall not preclude the enforcement of any regulation, order, or policy of a State commission that--

(A) establishes access and interconnection obligations of local exchange carriers;

(B) is consistent with the requirements of this section; and

(C) does not substantially prevent implementation of the requirements of this section and the purposes of this part.

(e) Numbering administration

(1) Commission authority and jurisdiction

The Commission shall create or designate one or more impartial entities to administer telecommunications numbering and to make such numbers available on an equitable basis. The Commission shall have exclusive jurisdiction over those portions of the North American Numbering Plan that pertain to the United States. Nothing in this paragraph shall preclude the

Commission from delegating to State commissions or other entities all or any portion of such jurisdiction.

(2) Costs

The cost of establishing telecommunications numbering administration arrangements and number portability shall be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission.

(3) Universal emergency telephone number

The Commission and any agency or entity to which the Commission has delegated authority under this subsection shall designate 9-1-1 as the universal emergency telephone number within the United States for reporting an emergency to appropriate authorities and requesting assistance. The designation shall apply to both wireline and wireless telephone service. In making the designation, the Commission (and any such agency or entity) shall provide appropriate transition periods for areas in which 9-1-1 is not in use as an emergency telephone number on October 26, 1999.

(f) Exemptions, suspensions, and modifications

(1) Exemption for certain rural telephone companies

(A) Exemption

Subsection (c) of this section shall not apply to a rural telephone company until (i) such company has received a bona fide request for interconnection, services, or network elements, and (ii) the State commission determines (under subparagraph (B)) that such request is not unduly economically burdensome, is technically feasible, and is consistent with section 254 of this title (other than subsections (b)(7) and (c)(1)(D) thereof).

(B) State termination of exemption and implementation schedule

The party making a bona fide request of a rural telephone company for interconnection, services, or network elements shall submit a notice of its request to the State commission. The State commission shall conduct an inquiry for the purpose of determining whether to terminate the exemption under subparagraph (A). Within 120 days after the State commission receives notice of the request, the State commission shall terminate the exemption if the request is not unduly economically burdensome, is technically feasible, and is consistent with section 254 of this title (other than subsections (b)(7) and (c)(1)(D) thereof). Upon termination of the exemption, a State commission shall establish an implementation schedule for compliance with the request that is consistent in time and manner with Commission regulations.

(C) Limitation on exemption

The exemption provided by this paragraph shall not apply with respect to a request under subsection (c) of this section, from a cable operator providing video programming, and seeking to provide any telecommunications service, in the area in which the rural telephone company provides video programming. The limitation contained in this subparagraph shall not apply to a rural telephone company that is providing video programming on February 8, 1996.

(2) Suspensions and modifications for rural carriers

A local exchange carrier with fewer than 2 percent of the Nation's subscriber lines installed in the aggregate nationwide may petition a State commission for a suspension or modification of the application of a requirement or requirements of subsection (b) or (c) of this section to telephone exchange service facilities specified in such petition. The State commission shall grant such petition to the extent that, and for such duration as, the State commission determines that such suspension or modification--

(A) is necessary--

(i) to avoid a significant adverse economic impact on users of telecommunications services generally;

(ii) to avoid imposing a requirement that is unduly economically burdensome; or

(iii) to avoid imposing a requirement that is technically infeasible; and

(B) is consistent with the public interest, convenience, and necessity.

The State commission shall act upon any petition filed under this paragraph within 180 days after receiving such petition. Pending such action, the State commission may suspend enforcement of the requirement or requirements to which the petition applies with respect to the petitioning carrier or carriers.

(g) Continued enforcement of exchange access and interconnection requirements

On and after February 8, 1996, each local exchange carrier, to the extent that it provides wireline services, shall provide exchange access, information access, and exchange services for such access to interexchange carriers and information service providers in accordance with the same equal access and nondiscriminatory interconnection restrictions and obligations (including receipt of compensation) that apply to such carrier on the date immediately preceding February 8, 1996 under any court order, consent decree, or regulation, order, or policy of the Commission, until such restrictions and obligations are explicitly superseded by regulations prescribed by the Commission after February 8, 1996. During the period beginning on February 8, 1996 and until such restrictions and obligations are so superseded, such restrictions and obligations shall be enforceable in the same manner as regulations of the Commission.

(h) Definition of incumbent local exchange carrier

(1) Definition

For purposes of this section, the term 'incumbent local exchange carrier' means, with respect to an area, the local exchange carrier that--

(A) on February 8, 1996, provided telephone exchange service in such area; and

(B)(i) on February 8, 1996, was deemed to be a member of the exchange carrier association pursuant to section 69.601(b) of the Commission's regulations (47 C.F.R. 69.601(b)); or

(ii) is a person or entity that, on or after February 8, 1996, became a successor or assign of a member described in clause (i).

(2) Treatment of comparable carriers as incumbents

The Commission may, by rule, provide for the treatment of a local exchange carrier (or class or category thereof) as an incumbent local exchange carrier for purposes of this section if--

(A) such carrier occupies a position in the market for telephone exchange service within an area that is comparable to the position occupied by a carrier described in paragraph (1);

(B) such carrier has substantially replaced an incumbent local exchange carrier described in paragraph (1); and

(C) such treatment is consistent with the public interest, convenience, and necessity and the purposes of this section.

(i) Savings provision

Nothing in this section shall be construed to limit or otherwise affect the Commission's authority under section 201 of this title.

§ 252. Procedures for negotiation, arbitration, and approval of agreements

(a) Agreements arrived at through negotiation

(1) Voluntary negotiations

Upon receiving a request for interconnection, services, or network elements pursuant to section 251 of this title, an incumbent local exchange carrier may negotiate and enter into a binding agreement with the requesting telecommunications carrier or carriers without regard to the standards set forth in subsections (b) and (c) of section 251 of this title. The agreement shall include a detailed schedule of itemized charges for interconnection and each service or network element included in the agreement. The agreement, including any interconnection agreement negotiated before February 8, 1996, shall be submitted to the State commission under subsection (e) of this section.

(2) Mediation

Any party negotiating an agreement under this section may, at any point in the negotiation, ask a State commission to participate in the negotiation and to mediate any differences arising in the course of the negotiation.

(b) Agreements arrived at through compulsory arbitration

(1) Arbitration

During the period from the 135th to the 160th day (inclusive) after the date on which an incumbent local exchange carrier receives a request for negotiation under this section, the carrier

or any other party to the negotiation may petition a State commission to arbitrate any open issues.

(2) Duty of petitioner

(A) A party that petitions a State commission under paragraph (1) shall, at the same time as it submits the petition, provide the State commission all relevant documentation concerning--

(i) the unresolved issues;

(ii) the position of each of the parties with respect to those issues; and

(iii) any other issue discussed and resolved by the parties.

(B) A party petitioning a State commission under paragraph (1) shall provide a copy of the petition and any documentation to the other party or parties not later than the day on which the State commission receives the petition.

(3) Opportunity to respond

A non-petitioning party to a negotiation under this section may respond to the other party's petition and provide such additional information as it wishes within 25 days after the State commission receives the petition.

(4) Action by State commission

(A) The State commission shall limit its consideration of any petition under paragraph (1) (and any response thereto) to the issues set forth in the petition and in the response, if any, filed under paragraph (3).

(B) The State commission may require the petitioning party and the responding party to provide such information as may be necessary for the State commission

to reach a decision on the unresolved issues. If any party refuses or fails unreasonably to respond on a timely basis to any reasonable request from the State commission, then the State commission may proceed on the basis of the best information available to it from whatever source derived.

(C) The State commission shall resolve each issue set forth in the petition and the response, if any, by imposing appropriate conditions as required to implement subsection (c) of this section upon the parties to the agreement, and shall conclude the resolution of any unresolved issues not later than 9 months after the date on which the local exchange carrier received the request under this section.

(5) Refusal to negotiate

The refusal of any other party to the negotiation to participate further in the negotiations, to cooperate with the State commission in carrying out its function as an arbitrator, or to continue to negotiate in good faith in the presence, or with the assistance, of the State commission shall be considered a failure to negotiate in good faith.

(c) Standards for arbitration

In resolving by arbitration under subsection (b) of this section any open issues and imposing conditions upon the parties to the agreement, a State commission shall--

(1) ensure that such resolution and conditions meet the requirements of section 251 of this title, including the regulations prescribed by the Commission pursuant to section 251 of this title;

(2) establish any rates for interconnection, services, or network elements according to subsection (d) of this section; and

(3) provide a schedule for implementation of the terms and conditions by the parties to the agreement.

(d) Pricing standards

(1) Interconnection and network element charges

Determinations by a State commission of the just and reasonable rate for the interconnection of facilities and equipment for purposes of subsection (c)(2) of section 251 of this title, and the just and reasonable rate for network elements for purposes of subsection (c)(3) of such section--

(A) shall be--

(i) based on the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the interconnection or network element (whichever is applicable), and

(ii) nondiscriminatory, and

(B) may include a reasonable profit.

(2) Charges for transport and termination of traffic

(A) In general

For the purposes of compliance by an incumbent local exchange carrier with section 251(b)(5) of this title, a State commission shall not consider the terms and conditions for reciprocal compensation to be just and reasonable unless--

(i) such terms and conditions provide for the mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier; and

(ii) such terms and conditions determine such costs on the basis of a reasonable approximation of the additional costs of terminating such calls.

(B) Rules of construction

This paragraph shall not be construed--

(i) to preclude arrangements that afford the mutual recovery of costs through the offsetting of reciprocal obligations, including arrangements that waive mutual recovery (such as bill-and-keep arrangements); or

(ii) to authorize the Commission or any State commission to engage in any rate regulation proceeding to establish with particularity the additional costs of transporting or terminating calls, or to require carriers to maintain records with respect to the additional costs of such calls.

(3) Wholesale prices for telecommunications services

For the purposes of section 251(c)(4) of this title, a State commission shall determine wholesale rates on the basis of retail rates charges to subscribers for the telecommunications service requested, excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by the local exchange carrier.

(e) Approval by State commission

(1) Approval required

Any interconnection agreement adopted by negotiation or arbitration shall be submitted for approval to the State commission. A State commission to which an agreement is submitted shall approve or reject the agreement, with written findings as to any deficiencies.

(2) Grounds for rejection

The State commission may only reject

(A) an agreement (or any portion thereof) adopted by negotiation under subsection (a) of this section if it finds that--

(i) the agreement (or portion thereof) discriminates against a telecommunications carrier not a party to the agreement; or

(ii) the implementation of such agreement or portion is not consistent with the public interest, convenience, and necessity; or

(B) an agreement (or any portion thereof) adopted by arbitration under subsection (b) of this section if it finds that the agreement does not meet the requirements of section 251 of this title, including the regulations prescribed by the Commission pursuant to section 251 of this title, or the standards set forth in subsection (d) of this section.

(3) Preservation of authority

Notwithstanding paragraph (2), but subject to section 253 of this title, nothing in this section shall prohibit a State commission from establishing or enforcing other requirements of State law in its review of an agreement, including requiring compliance with intrastate telecommunications service quality standards or requirements.

(4) Schedule for decision

If the State commission does not act to approve or reject the agreement within 90 days after submission by the parties of an agreement adopted by negotiation under subsection (a) of this section, or within 30 days after submission by the parties of an agreement adopted by arbitration under subsection (b) of this section, the agreement shall be deemed approved. No State court shall have jurisdiction to review the action of a State commission in approving or rejecting an agreement under this section.

(5) Commission to act if State will not act

If a State commission fails to act to carry out its responsibility under this section in any proceeding or other matter under this section, then the Commission shall issue an order preempting the State commission's jurisdiction of that proceeding or matter within 90 days after being notified (or taking notice) of such failure, and shall assume the responsibility of the State commission under this section with respect to the proceeding or matter and act for the State commission.

(6) Review of State commission actions

In a case in which a State fails to act as described in paragraph (5), the proceeding by the Commission under such paragraph and any judicial review of the Commission's actions shall be the exclusive remedies for a State commission's failure to act. In any case in which a State commission makes a determination under this section, any party aggrieved by such determination may bring an action in an appropriate Federal district court to determine whether the agreement or statement meets the requirements of section 251 of this title and this section.

(f) Statements of generally available terms

(1) In general

A Bell operating company may prepare and file with a State commission a statement of the terms and conditions that such company generally offers within that State to comply with the requirements of section 251 of this title and the regulations thereunder and the standards applicable under this section.

(2) State commission review

A State commission may not approve such statement unless such statement complies with subsection (d) of this section and section 251 of this title and the regulations thereunder. Except as provided in section 253 of this title, nothing in this section shall prohibit a State commission from establishing or enforcing other requirements of State law in its review of such

statement, including requiring compliance with intrastate telecommunications service quality standards or requirements.

(3) Schedule for review

The State commission to which a statement is submitted shall, not later than 60 days after the date of such submission--

(A) complete the review of such statement under paragraph (2) (including any reconsideration thereof), unless the submitting carrier agrees to an extension of the period for such review; or

(B) permit such statement to take effect.

(4) Authority to continue review

Paragraph (3) shall not preclude the State commission from continuing to review a statement that has been permitted to take effect under subparagraph (B) of such paragraph or from approving or disapproving such statement under paragraph (2).

(5) Duty to negotiate not affected

The submission or approval of a statement under this subsection shall not relieve a Bell operating company of its duty to negotiate the terms and conditions of an agreement under section 251 of this title.

(g) Consolidation of State proceedings

Where not inconsistent with the requirements of this chapter, a State commission may, to the extent practical, consolidate proceedings under sections 214(e), 251(f), and 253 of this title, and this section in order to reduce administrative burdens on telecommunications carriers, other parties to the proceedings, and the State commission in carrying out its responsibilities under this chapter.

(h) Filing required

A State commission shall make a copy of each agreement approved under subsection (e) of this section and each statement approved under subsection (f) of this section available for public inspection and copying within 10 days after the agreement or statement is approved. The State commission may charge a reasonable and nondiscriminatory fee to the parties to the agreement or to the party filing the statement to cover the costs of approving and filing such agreement or statement.

(i) Availability to other telecommunications carriers

A local exchange carrier shall make available any interconnection, service, or network element provided under an agreement approved under this section to which it is a party to any other requesting telecommunications carrier upon the same terms and conditions as those provided in the agreement.

(j) Definition of incumbent local exchange carrier

For purposes of this section, the term "incumbent local exchange carrier" has the meaning provided in section 251(h) of this title.

APPENDIX E

Regulatory Provisions Involved

CODE OF FEDERAL REGULATIONS
TITLE 47--TELECOMMUNICATION
CHAPTER I--FEDERAL COMMUNICATIONS COMMISSION
SUBCHAPTER B--COMMON CARRIER SERVICES
PART 51--INTERCONNECTION

* * * *

§ 51.315 Combination of unbundled network elements.

(a) An incumbent LEC shall provide unbundled network elements in a manner that allows requesting telecommunications carriers to combine such network elements in order to provide a telecommunications service.

(b) Except upon request, an incumbent LEC shall not separate requested network elements that the incumbent LEC currently combines.

(c) Upon request, an incumbent LEC shall perform the functions necessary to combine unbundled network elements in any manner, even if those elements are not ordinarily combined in the incumbent LEC's network, provided that such combination is:

(1) Technically feasible; and

(2) Would not impair the ability of other carriers to obtain access to unbundled network elements or to interconnect with the incumbent LEC's network.

(d) Upon request, an incumbent LEC shall perform the functions necessary to combine unbundled network elements with elements possessed by the requesting telecommunications carrier in any technically feasible manner.

(e) An incumbent LEC that denies a request to combine elements pursuant to paragraph (c)(1) or paragraph (d) of this section must prove to the state commission that the requested combination is not technically feasible.

(f) An incumbent LEC that denies a request to combine elements pursuant to paragraph (c)(2) of this section must prove to the state commission that the requested combination would impair the ability of other carriers to obtain access to unbundled network elements or to interconnect with the incumbent LEC's network.

* * * *

§ 51.501 Scope.

(a) The rules in this subpart apply to the pricing of network elements, interconnection, and methods of obtaining access to unbundled elements, including physical collocation and virtual collocation.

(b) As used in this subpart, the term "element" includes network elements, interconnection, and methods of obtaining interconnection and access to unbundled elements.

§ 51.503 General pricing standard.

(a) An incumbent LEC shall offer elements to requesting telecommunications carriers at rates, terms, and conditions that are just, reasonable, and nondiscriminatory.

(b) An incumbent LEC's rates for each element it offers shall comply with the rate structure rules set forth in §§ 51.507 and 51.509, and shall be established, at the election of the state commission--

(1) Pursuant to the forward-looking economic cost-based pricing methodology set forth in §§ 51.505 and 51.511; or

(2) Consistent with the proxy ceilings and ranges set forth in § 51.513.

(c) The rates that an incumbent LEC assesses for elements shall not vary on the basis of the class of customers served by the requesting carrier, or on the type of services that the requesting carrier purchasing such elements uses them to provide.

§ 51.505 Forward-looking economic cost.

(a) In general. The forward-looking economic cost of an element equals the sum of:

(1) The total element long-run incremental cost of the element, as described in paragraph (b); and

(2) A reasonable allocation of forward-looking common costs, as described in paragraph (c).

(b) Total element long-run incremental cost. The total element long-run incremental cost of an element is the forward-looking cost over the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, such element, calculated taking as a given the incumbent LEC's provision of other elements.

(1) Efficient network configuration. The total element long-run incremental cost of an element should be measured based on the use of the most efficient telecommunications technology currently available and the lowest cost network configuration, given the existing location of the incumbent LEC's wire centers.

(2) Forward-looking cost of capital. The forward-looking cost of capital shall be used in calculating the total element long-run incremental cost of an element.

(3) Depreciation rates. The depreciation rates used in calculating forward- looking economic costs of elements shall be economic depreciation rates.

(c) Reasonable allocation of forward-looking common costs–

(1) Forward-looking common costs. Forward-looking common costs are economic costs efficiently incurred in providing a group of elements or services (which may include all elements or services provided by the incumbent LEC) that cannot be attributed directly to individual elements or services.

(2) Reasonable allocation.

(i) The sum of a reasonable allocation of forward-looking common costs and the total element long-run incremental cost of an element shall not exceed the stand-alone costs associated with the element. In this context, stand-alone costs are the total forward-looking costs, including corporate costs, that would be incurred to produce a given element if that element were provided by an efficient firm that produced nothing but the given element.

(ii) The sum of the allocation of forward-looking common costs for all elements and services shall equal the total forward-looking common costs, exclusive of retail costs, attributable to operating the incumbent LEC's total network, so as to provide all the elements and services offered.

(d) Factors that may not be considered. The following factors shall not be considered in a calculation of the forward-looking economic cost of an element:

(1) Embedded costs. Embedded costs are the costs that the incumbent LEC incurred in the past and that are recorded in the incumbent LEC's books of accounts;

(2) Retail costs. Retail costs include the costs of marketing, billing, collection, and other costs associated with offering retail telecommunications services to subscribers who are not telecommunications carriers, described in § 51.609;

(3) Opportunity costs. Opportunity costs include the revenues that the incumbent LEC would have received for the sale of telecommunications services, in the absence of competition from telecommunications carriers that purchase elements; and

(4) Revenues to subsidize other services. Revenues to subsidize other services include revenues associated with elements or telecommunications service offerings other than the element for which a rate is being established.

(e) Cost study requirements. An incumbent LEC must prove to the state commission that the rates for each element it offers do not exceed the forward- looking economic cost per unit of providing the element, using a cost study that complies with the methodology set forth in this section and § 51.511.

(1) A state commission may set a rate outside the proxy ranges or above the proxy ceilings described in § 51.513 only if that commission has given full and fair effect to the economic cost based pricing methodology described in this section and § 51.511 in a state proceeding that meets the requirements of paragraph (e)(2) of this section.

(2) Any state proceeding conducted pursuant to this section shall provide notice and an opportunity for comment to affected parties and shall result in the creation of a written factual record that is sufficient for purposes of review. The record of any state proceeding in which a state commission considers a cost study for purposes of establishing rates under this section shall include any such cost study.

* * * *

§ 51.607 Wholesale pricing standard.

The wholesale rate that an incumbent LEC may charge for a telecommunications service provided for resale to other telecommunications carriers shall equal the rate for the telecommunications service, less avoided retail costs, as described in section 51.609. For purposes of this subpart, exchange access services, as defined in section 3 of the Act, shall not be considered to be telecommunications services that incumbent LECs must make available for resale at wholesale rates to requesting telecommunications carriers.

§ 51.609 Determination of avoided retail costs.

(a) Except as provided in § 51.611, the amount of avoided retail costs shall be determined on the basis of a cost study that complies with the requirements of this section.

(b) Avoided retail costs shall be those costs that reasonably can be avoided when an incumbent LEC provides a telecommunications service for resale at wholesale rates to a requesting carrier.

(c) For incumbent LECs that are designated as Class A companies under § 32.11 of this chapter, except as provided in paragraph (d) of this section, avoided retail costs shall:

(1) Include, as direct costs, the costs recorded in USOA accounts 6611 (product management), 6612 (sales), 6613 (product advertising), 6621 (call completion services), 6622 (number services), and 6623 (customer services) (§§ 32.6611, 32.6612, 32.6613, 32.6621, 32.6622, and 32.6623 of this chapter);

(2) Include, as indirect costs, a portion of the costs recorded in USOA accounts 6121-6124 (general support expenses), 6711, 6712, 6721-6728 (corporate operations expenses), and 5301 (telecommunications uncollectibles) (§§ 32.6121- 32.6124, 32.6711, 32.6712, 32.6721-32.6728, and 32.5301 of this chapter); and

(3) Not include plant-specific expenses and plant non-specific expenses, other than general support expenses (§§ 32.6110-32.6116, 32.6210-32.6565 of this chapter).

(d) Costs included in accounts 6611-6613 and 6621-6623 described in paragraph (c) of this section (§§ 32.6611-32.6613 and 32.6621-32.6623 of this chapter) may be included in wholesale rates only to the extent that the incumbent LEC proves to a state commission that specific costs in these accounts will be incurred and are not avoidable with respect to services sold at wholesale, or that specific costs in these accounts are not included in the retail prices of resold services. Costs included in accounts 6110-6116 and 6210-6565 described in paragraph (c) of this section (§§ 32.6110-32.6116, 32.6210-32.6565 of this chapter) may be treated as avoided retail costs, and excluded from wholesale rates, only to the extent that a party proves to a state commission that specific costs in these accounts can reasonably be avoided when an incumbent LEC provides a telecommunications service for resale to a requesting carrier.

(e) For incumbent LECs that are designated as Class B companies under § 32.11 of this chapter and that record information in summary accounts instead of specific USOA accounts, the entire relevant summary accounts may be used in lieu of the specific USOA accounts listed in paragraphs (c) and (d) of this section.